Cinegy Air PRO

real-time playout server and multi-channel broadcast automation software

Cinegy Air PRO is the logical next step in the evolution of broadcast automation and video servers. Gone are the monolithic black boxes, replaced by TCP/IP network-attached real-time service appliances. Cinegy Air PRO provides a broadcast automation front-end and a real-time video server for SD, HD and/or Ultra HD (4K) playout in an integrated software suite. Designed to meet the most demanding requirements Cinegy Air PRO effortlessly succeeds where so many others fail. Cinegy Air PRO can be used to control multiple channels playing to air or to plan schedules, program and commercial blocks offline. Multiple remote or local users can control the schedule and playout operation. Offering unparalleled flexibility by playing mixed format and mixed resolution content as well as un-rendered edit sequences straight to air. Insert logos, add overlays and control external devices. Simulcast output via SDI and/or IP streams for ATSC/DVB or web usage.

Cinegy Air PRO – Control and Engine

Cinegy Air PRO provides a software-based system for SD, HD and/or Ultra HD (4K) playout automation using standard PC server hardware. Cinegy Air PRO performs video playout by acting as a TCP/IP-connected video "printer" offering its services in a network. The Cinegy Air PRO broadcast automation software connects to the playout service and instructs it what to "print" to air and when. Cinegy Air PRO consists of two elements, Cinegy Air PRO Control and Cinegy Air PRO Engine. Cinegy Air PRO Control provides a state-of-the-art interface for controlling one or more Cinegy Air PRO playout channels connected via TCP/IP.

Cinegy Air PRO Engine executes the playlist provided to it and renders video and audio to air. It also sends real-time video stream feedback to the Cinegy Air PRO Control interface, eliminating the need for video control monitors as well as SDI cabling and routing. In small environments, Cinegy Air PRO Control and Cinegy Air PRO Engine can run on one PC – basically a "TV channel in a box".

Future-Proof, Scalable

Cinegy Air PRO is software-based, and runs on certified standard IT hardware and certified, standard SDI video cards. As a result, an HD playout server can fit into a single rack unit. Multiple instances of Cinegy Air PRO Engine can be started on a single powerful machine transforming it into a playout server that broadcasts multiple independent channels.

Multi-Channel, Multi-Format

Cinegy Air PRO supports multi-channel playout, including simultaneous playout of several playout channels which can be controlled by a single Cinegy Air PRO Control application. A horizontal timeline view provides simultaneous overview of all channels, while a vertical view permits editing of the currently selected channel. Cinegy Air PRO playout channels can also be set up to broadcast programs live on the Internet, along with the broadcasts feeds, without requiring additional hardware or software.

Cinegy Air PRO Control, active mode, multi-channel playout

Cinegy Air PRO	Cinegy Air SOLO	Cinegy Playout Series Feature Matrix
X	X	Web Streaming
X	X	MPEG-2 TS RTP/UDP
X		Compliance Recording
X		Secondary Recording
X		Simulcast SD/HD
X		Simulcast 4x3/16x9
X	X	SD SDI Out
X	X	HD SDI Out
X	X	Logo Insertion
X	X	CC & Channel Branding*
X		High-Availability (Mirror)
X	X	Multi-Channel Control
X	X	Live Input
X	X	AVC-Intra
X	X	AVID DNxHD*
X	X	MXF AS02/AS03
X		Remote Operation
X	X	Automation
X		Live & News Control
X		Prefetch Caching
X		MAM Integration
X		MOS Integration
X	X	Virtualization
X	X	Slow-Motion Playback
X	X	RS-422 Control
X		Play while Ingest

*available as a paid option

Simple Operation

Automating broadcast operations with Cinegy Air PRO Control is simple. In traditional systems, video servers are required to browse video content and define in- and out-points. Not with Cinegy Air PRO. A standard PC or even notebook computer is all that is required to browse content and assemble playlists. Cinegy Air PRO Control can be installed on any machine in a network and playlists can be created in online or offline mode. Clips, edit sequences and other objects can be added to playlists simply by drag-and-drop. Prepared blocks and playlists can be appended or inserted. Cinegy Air PRO Engine continues to play existing playlists unattended until modified by Cinegy Air PRO Control.

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High-Availability

Cinegy Air PRO upholds a high level of fault-tolerance and high-availability, while providing all the advantages of centralized storage and connection to the Cinegy Archive. Playlists for individual channels are stored locally in the corresponding playout server in open XML format while a background service is caching and conforming the video material on the playlist. Cinegy Air PRO Engine only plays media direct and uncached from the central storage when it is added immediately before going to air. For each Cinegy Air PRO channel, one or more slave channels can be defined, all of which will play, frame accurately, the same media as the master, ensuring reliable failover if ever needed.

Virtualization

The Cinegy Air PRO Engine can run in a virtual machine (VM) environment VMWARE ESX, Microsoft Hyper-V or Citrix XenServer. Running Cinegy Air PRO Engines in a VM has many advantages such as better hardware utilization, quick deployment of additional channels (in seconds), much easier migration and inexpensive high-availability clustering. As SDI cards cannot be virtualized but may still be needed and where they cannot be replaced by RTP or UDP streams via IP, the SDI I/O is done via the Cinegy Gateway which does RTP to SDI conversion and vice versa.

MAM, Traffic and Middleware Integration

Cinegy Air PRO can work completely stand-alone or in concert with MAM, archive and traffic solutions. Cinegy's MAM and archive solution can be fully integrated with Cinegy Air PRO. A number of leading 3rd party traffic solutions integrate with Cinegy Air PRO and the Cinegy MAM. Metadata like rights, conditional access (CA), V-Chip and other information will seamlessly migrate from the Cinegy MAM or the traffic systems to the Cinegy Air PRO playout schedule. Cinegy Air PRO also integrates with middleware platforms such as NDS MediaHighway for EPG creation and CA triggering.

Open Architecture

Cinegy Air PRO architecture is fully open. It supports all standard video file formats ranging from DV to 1080i HD MPEG-2 or H.264 long GOP 4:2:2. Playlists are transmitted as XML files that can also be easily read or created by other applications. An open plug-in API allows Cinegy Air PRO to control other hardware devices as secondary events. Traffic integration with various systems is easily accomplished. The functionality can be extended. Codecs can be added and updated.

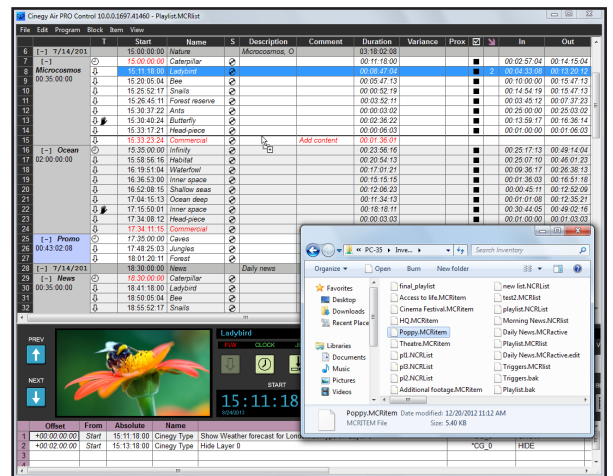## Cinegy Type – Integrated Add-On for Real-Time CG & Branding

From simple ticker tapes and lower thirds to multi-layer character animations Cinegy Type includes a whole range of advanced effects and features. This new optional module addresses simple requirements such as logo insertion right through to complex branding with picture in picture and background squeeze.

The Cinegy Type template editor allows the prefabrication of templates that can then be triggered by Cinegy Air PRO automation with the variable parts of the templates being automatically updated.

Supported SDI Hardware

The following SDI cards are supported:

- AJA – AJA Kona LHe Plus, AJA Kona LHi, AJA Kona Io Express, Kona 3G, Corvid 22/24
- Blackmagic Design – DeckLink series and Intensity PRO
- DVS – Atomix LT
- Deltacast – DELTA-hd series

Building a playlist in Cinegy Air PRO

Features Overview

- Output in SD, HD and Ultra HD (4K)
- Run up to 16 channels in a box or virtual machine
- Control multiple channels on one PC over network
- Mix different codecs, resolutions and aspect ratios in one playlist
- Output to SDI in SD and HD simultaneously
- Stream to RTP in H.264 or MPEG-2
- Automatically opt-in/out via SCTE 35 triggers
- Switch to incoming SDI or RTP feeds
- Play during ingest
- Realtime automatic up/down conversion
- Up to 64 audio channels per playout
- Integrated Dolby Digital decoding and encoding *
- Automatic file caching from network
- Mirroring for redundancy
- Automatic failover switching with Cinegy Stream Switcher *
- Closed captions, V-Chip and AFD support
- EAS messaging
- Static or animated logo insertion
- Channel branding with Cinegy Type *
- 3rd party SDI router control with Cinegy Event Manager
- 3rd party traffic integration with Cinegy Traffic Gateway *

 * Requires a dedicated product or license option.

Supported Codecs and File Formats

DV25/50/100	H.264
HDV	MXF OP1a
IMX30/50	MXF AS-03/11
XDCAM SD/HD/EX	Windows AVI
AVID DNxHD	QuickTime MOV
MXF MPEG-2 Long GOP	Windows Media
AVC-Intra 50/100	JPEG, PNG and BMP Images
MPEG-2 (up to 1080i 4:2:2)	

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