

Cinegy Air

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



Cinegy Air 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 provides a broadcast automation front-end and a real-time video server for SD and HD playout in an integrated software suite. Designed to meet the most demanding requirements Cinegy Air effortlessly succeeds where so many others fail. Cinegy Air 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 - Control and Engine

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

Cinegy Air 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 Control interface, eliminating the need for video control monitors as well as SDI cabling and routing. In small environments, Cinegy Air Control and Cinegy Air Engine can run on one PC – basically a “TV channel in a box”.

Future-Proof, Scalable

Cinegy Air 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 with the potential for even higher integration in the future.

Multi-Channel, Multi-Format

Cinegy Air supports multi-channel playout, including simultaneous playout of several playout channels controlled by a single Cinegy Air 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 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, active mode, multi-channel playout

Cinegy Air Features Matrix

Cinegy Air HD	Cinegy Air SD	Cinegy Air Express HD	Cinegy Air Express	
X	X	X	X	Web Streaming
X	X	X	X	MPEG2-TS RTP/UDP
X	X			Compliance Recording
X	X			Secondary Recording
X	X	X		Simulcast SD / HD
X	X	X	X	SD SDI Out
X		X		HD SDI Out
X	X	X	X	Logo Insertion
X	X			High-Availability (Mirror)
X	X			Multi-Channel Control
X	X	X	X	Live Input
X		X		AVC-Intra
X		X		AVID DNxHD
X	X	X		MXF AS02/AS03
X	X	X	X	Remote Operation
X	X	X	X	Air Control Automation
X	X	X	X	Studio / Trick Mode
X	X			Pre-fetch Caching
X	X			MAM Integration
X	X			MOS / News Integration
X	X			Traffic Integration
X	X	X	X	Virtualization

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Simple Operation

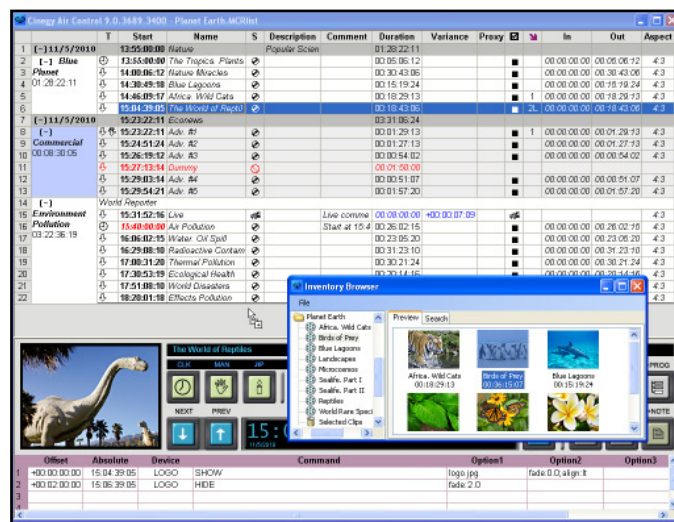
Automating broadcast operations with Cinegy Air Control is simple. In traditional systems, video servers are required to browse video content and define in- and out-points. Not with Cinegy Air. A standard PC or even notebook computer is all that is required to browse content and assemble playlists. Cinegy Air 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 Engine continues to play existing playlists unattended until modified by Cinegy Air Control.

High-Availability

Cinegy Air 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 Engine only plays media direct and uncached from the central storage when it is added immediately before going to air. For each Cinegy Air 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.

Features Overview

- Real-time, network service-based video playout operated remotely via TCP/IP. No need for SDI control monitors. Scalable to hundreds of channels.
- Support for commonly used video file formats, including AVI, DV, HDV, IMX, XDCAM SD/HD, MPEG2 (up to 1080i 4:2:2), AVID DNxHD, MXF MPEG 2 Long GOP, MXF AS-03, AVC-Intra, Quicktime and Windows Media.
- High-availability and fault-tolerance through optional pre-fetching with local caching and optional failover mirror channels.
- Multi-channel playout control for simultaneous broadcast of different playlists in various TV formats to multiple channels.
- Simulcast HD/SD playout. Simultaneously playout of a single playlist in SD and HD.
- Horizontal timeline for a clear overview for multi-channel operations.
- Secondary events for external device control.
- Local or remote control operation via LAN or WAN.
- GPI events processing for automatic commercial insertion.
- Broadcast directly to the Internet using Web streaming.
- Live RTP/UDP streams from different sources can be inserted into the playlists as live playout items.
- WMV and MPEG2 streams can be generated as an alternative to SDI output or simultaneously with it. Support for Flash and H.264 TS/RTP/UDP coming soon.
- As-run logging and custom report generation.
- Traffic integration with various traffic systems.
- NDS MediaHighway middleware integration
- Closed caption and Dolby E pass-through (codec dependent).
- SDI video router modules to support automatic video/audio signal switching of input and output signals.



Building a playlist in Cinegy Air

Virtualization

The Cinegy Air Engine can run in a virtual machine (VM) environment VMWARE ESX or Microsoft Hyper-V. Running Cinegy Air 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 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. A number of leading 3rd party traffic solutions integrate with Cinegy Air 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 playout schedule. Cinegy Air also integrates with middleware platforms such as NDS MediaHighway for EPG creation and CA triggering.

Open Architecture

Cinegy Air architecture is fully open. It supports all standard video file formats ranging from DV over AVID DNxHD to 1080i HD MPEG2 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 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.

NEW 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 automation with the variable parts of the templates being automatically updated.