

# CINEGY AIR

8K

## multi-channel playout & branding local, virtualized and in the cloud



Cinegy Air is the next logical step in the evolution of broadcast automation and playout. Gone are the racks of boxes, replaced by IP-connected real-time software engines handling multiple channels running on physical servers, in virtual machines or in the cloud. Cinegy Air provides broadcast automation and real-time video playout for SD, HD, UHD and 8K. As an integrated software suite, it offers unparalleled flexibility by playing mixed format and mixed resolution content as well as realtime-rendering edit sequences straight to air. This makes it ideal for news, sports, live studio as well as scheduled playout operations - all this with template-based, dynamic branding on top. Cinegy Air comes in three versions - Air, Air PRO and Air ULTIMATE. Air PRO includes the Cinegy Title branding option and Air ULTIMATE adds subtitling support to that.

### Flexible and Scalable

Cinegy Air provides a software-based system for SD, HD, UHD and 8K playout automation using standard IT hardware. It 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: a control panel and a playout engine. The Air control panel provides a state-of-the-art interface for controlling one or more playout channels connected via TCP/IP. The Air playout engine executes the playlist provided to it and renders video and audio to air. It also sends real-time video stream feedback to the control panel interface, eliminating the need for video monitors as well as SDI cabling and routing.

### Future-Proof

Cinegy Air is software-based and runs on standard IT hardware and certified, standard SDI video cards or via SRT, NDI and IP. As a result, an 8K playout server can fit into a single rack unit. Cinegy Air playout channels can also be set up to stream programs live without requiring additional hardware or software. Cinegy Air supports multi-channel operation, including simultaneous playout of several channels which can be controlled by a single control application. Multiple instances of Cinegy Air playout can run on a single powerful machine transforming it into a server broadcasting multiple independent channels. Cinegy Air is also available for instant use in the cloud.

### Live

Cinegy Air is also a cart wall / trick mode playout for news, sports, reality show, and other live operations. A/B roll, gang, slow-motion, loop, and bounce playback features are all supported and can be controlled with the Cinegy Studio UI control panel, via RS-422 compatible devices using 9-pin protocol, GPI or external API calls. In a live news production environment, Cinegy Air can be connected to a Cinegy Archive integrated newsroom solution and used to control up to 4 independent playout engines along with Cinegy Titrer graphics and Cinegy Prompter teleprompting software. Cinegy Air Studio Control can be integrated into a 3rd party MOS-based newsroom solution such as ENPS, Avid iNews, Octopus or Annova Systems, automatically updating all rundowns as they change. Of course Cinegy Air can playout files that are still being recorded.

### High Availability

Cinegy Air upholds a high level of fault-tolerance and high-availability, while providing all the advantages of centralized storage and object oriented cloud storage. For additional safety a background service can cache all the media items in a channel's playlist ahead of time to local storage. 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.



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## Cloud Compatible

Cinegy Air runs in the cloud on AWS, Azure, Citrix XenServer, Google Cloud, Microsoft Hyper-V, virtualized using VMWARE, and many others. Running Cinegy Air playout on a virtual machine (VM) has many advantages such as better hardware utilization, instant deployment of additional channels, much easier migration and inexpensive high availability clustering. As SDI cards cannot be virtualized but may still be needed where they cannot be replaced by IP streams, baseband I/O and real-time SDI to IP conversion can be offloaded to using Cinegy Encode as a gateway.

## SRT Support

Cinegy Air has integrated SRT (Secure, Reliable Transport) for both incoming or outgoing IP signals providing error-free, very low-latency connections over imperfect networks like the Internet. The SRT protocol supports pull as well as push mode allowing it to act as a streaming server. SRT has become the defacto standard in the broadcast industry backed by hundreds of vendors.

## Integration with Traffic and MAM

Cinegy Air can work completely standalone or in concert with the Cinegy Archive MAM solution as well as many leading 3rd party traffic solutions. Metadata like rights, conditional access (CA), V-Chip and other information will seamlessly migrate to the Cinegy Air playout schedule. Cinegy Air also integrates with middleware platforms for EPG creation and CA triggering.

## Subtitle Insertion

Air ULTIMATE includes one channel of subtitle insertion (TT or DVB) with the option to add additional channels e.g. for additional languages as paid extra.

## Channel Branding and CG

Cinegy Air PRO and Ultimate come with Cinegy Title, a CG and branding option, which allows the addition of multiple layers of automation controlled, template-based titles, logos and animated graphics. Cinegy Air automation can control up to 10 simultaneous Title templates, with dynamic parts of the templates being updated either manually or automatically. A separate Title control panel allows control of live or emergency graphics whenever needed. With the help of Cinegy Studio you can build a playlist with pre-populated graphics for a typical live talk show or news program.

Cinegy Air PRO and ULTIMATE come with the Cinegy Title designer tool, which allows building creative templates offline with all the effects and features required for highly automated channel branding or live studio graphics:

- Add effects to text, such as a mask, shadow, outline, glow, autofit or texture, change the color and transparency.
- Add fixed, crawling or rolling text, with either static or templated content.
- Insert logos, pictures, video, audio or animations, with a range of formats supported e.g. GIF, TIF, BMP, JPEG, AVI, MXF or MPEG.
- Create text variables which can be changed just before playout.
- Items can be played once, run on a loop, or ping-pong from left to right.
- Add multiple layers for complex compositions involving multiple objects.
- Manage items and define in and out points using the timeline. Create smooth transitions or control movement with bezier curves.
- Create masks and dynamically occlude text and video.
- Insert countdowns, clocks, and stopwatches with complex formatting.
- Use a simple macro language to automate metadata display directly from the playlist.
- Templates, once created, can be re-used with minimal effort.
- Use the live video inputs in Cinegy Air as a textures inside Cinegy Title - perfect for making seamless squeeze-back effects for end-credits or multiple talking heads picture-in-picture effects.

## Features Overview

- Local, virtualized or cloud based playout and branding
- All SD, HD, UHD and 8K formats up to 50/59.94p
- Scheduled operation and live studio production
- Integrated channel branding and live CG (PRO & ULTIMATE)
- Integrated subtitle insertion (ULTIMATE)
- Mix different codecs, resolutions, and aspect ratios
- Real-time automatic up/down conversion
- Simulcast in SD, HD, UHD and 8K via SDI, NDI, IP and web
- SDI I/O via AJA, Blackmagic and Deltacast boards
- Generate MPEG-2, H.264, and HEVC live IP streams
- Use multiple incoming SDI, NDI or IP feeds
- Integrated SRT support for incoming and outgoing IP streams
- 608/708 closed captions support and decoding
- File embedded OP42/47 subtitles support and pass-through
- Integrated AC-3 decoding and encoding
- Control multiple playout channels over network
- Multichannel commercials insertion - master and breakout channels
- Automate commercials opt-out via SCTE 35 or SCTE 104
- R128/CALM loudness limiter \*
- Playout while recording (e.g. using Cinegy Capture)
- Up to 16 TV channels on a single machine / server
- Up to 64 audio channels per playout channel
- Automatic file caching from network
- Mirroring for redundancy
- V-Chip and AFD support
- EAS compliant - requires 3rd party hardware for triggering
- SDI router control
- Nielsen watermarking \*
- Kantar watermarking \*
- 3rd party traffic integration \*
- Advanced metadata management \*

*\* Requires a dedicated product or license option*

## Baseband I/O

Cinegy Air supports a wide variety of SDI / IP boards:

- AJA Kona and Corvid series SDI & IP cards
- Blackmagic Design Decklink series
- Deltacast SDI & IP family
- Webcam / WDM support and various other SDI cards ...

## Supported Codecs and File Formats

- Apple ProRes
- AVC-Intra / AVC-Ultra
- Sony XDCAM up to HD422
- Avid DNxHD/HR\*
- Sony XAVC
- Sony IMX
- DV up to DVCPRO HD
- HDV
- H.264
- HEVC
- MPEG-2
- DV
- MXF OP1a
- MXF AS-03
- MXF AS-11 / DPP
- Windows AVI
- QuickTime MOV
- WAV and MP3 audio files
- JPEG2000
- JPEG, PNG, BMP etc.
- Cinegy Daniel2
- many more ...

*\* Requires a dedicated product or license option*

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