



## Anyware Video

MainConcept<sup>®</sup> codecs & streaming components are the driving force behind Anyware Video's broadcast video servers as well as ingest, playout, on air branding and supervision systems

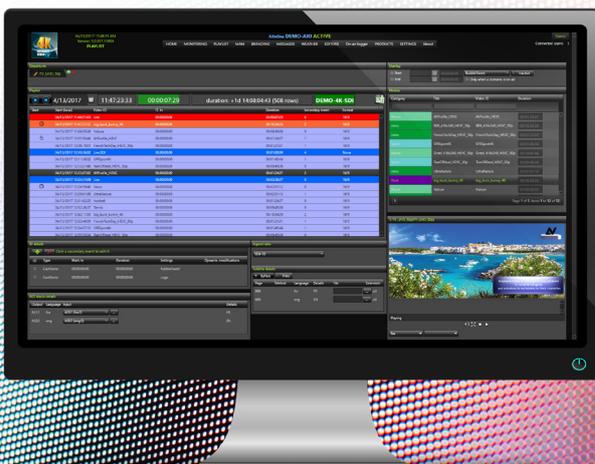


In the rapidly changing broadcast market, a core value is to anticipate and fulfill as many customer requirements as possible. For that reason, you need to offer a wide range of products that cover these demands. The Anyware Video product portfolio consists of powerful video servers for capturing and transmitting content in multiple formats as well as highly flexible ingest, playout, editing and supervising solutions for broadcast automation. To handle all these tasks properly, users have to deal with content in numerous diverse formats each day. For staying competitive in the industry, it is necessary to support all common formats in the complete production workflow. To achieve this goal, solutions require high performance and best quality encoders, decoders and related components.

## CHALLENGES

Anyware Video has been developing and licensing business software to broadcasters, TV channels and production houses for 20 years. The France-based company is working closely with many major national and international media groups to create high-end solutions designed to solve complex workflow tasks in professional environments. Serving these companies properly requires support for a large compilation of audio and video codecs.

Customers nowadays do not want to deal with different products for each codec, so they are looking for all-in-one solutions that handle any media type.



### PLATFORMS

- OneGenie<sup>®</sup>
- DubMaster<sup>®</sup>

### MARKETS:

- Broadcast
- TV Channels
- Production Companies

### USE CASE:

- Ingest / Playout, Supervision, Capturing / Playback, Editing

### MAINCONCEPT SDKS:

- HEVC/H.265
- AVC/H.264 BC
- MPEG-1/2
- DVCPRO HD
- JPEG 2000
- VC-3 Decoder (Avid DNxHD / DNxHR)
- Network Streaming Broadcast
- DASH Muxing & Packaging

**AT A GLANCE:**

- MainConcept is used for almost all media processing & streaming
- Early adopter of MainConcept HEVC SDK
- In-depth knowledge of the broadcast market
- MainConcept offers largest library of codecs & formats
- MainConcept powers Anyware Video channel-in-a-box products
- Best mix of speed, quality and price
- MainConcept enables the complete MPEG-DASH production chain
- High-level engineering support

Anyware Video offers support for this combined set of formats in their OneGenie and DubMaster broadcast products, including major codecs like HEVC/H.265, AVC/H.264, MPEG-1/2, DNxHD / DNxHR, DVCPRO HD and many more to fulfill their clients' requirements. Reliability and staying on top technologically are core to retaining accounts in media and broadcast today.

For that reason, Anyware Video has been searching for a reliable and renowned technology partner, able to provide best possible image and video quality for their products as their servers run from SD (Standard Definition) to 4K HDR (High Dynamic Range). The diversity of possible codecs has been a second criterion for choosing the right vendor for that project.

MainConcept's long history and state-of-the-art codec and network streaming portfolio exactly meets Anyware Video's vision, because we provide a complete library of SDK components for building a professional ingest, playout, On Air branding and supervision system as well as a powerful video server for capturing and editing TV channels in all common SD, HD and 4K resolutions. Using MainConcept's Encoder, Decoder and Streaming SDKs helps them to overcome the obstacles they previously experienced.

## SUCCESS STORY

Anyware Video's industry-leading solutions for broadcast automation, supervision and playout servers combine different production tasks, such as ingest, playout, branding, supervising, capturing and editing for TV channels, under one hood. Companies from different markets like broadcasters, TV channels and production houses look at Anyware Video's products as a powerful, reliable, highly flexible yet cost-effective system for their workflows supporting all established industry standards. Customers can be assured to get best quality and an advanced feature set when using OneGenie and DubMaster, controlled by a comprehensive web-based interface in a broadcast environment.

Finding a partner to provide components that handle the most popular codecs as well as formats, and which will be the underlying driving force for their products, did not take much time for Anyware Video. However, identifying a company that also offers the corresponding network streaming components and libraries which can handle the complete MPEG-DASH creation, including MPD file generation, pointed the French company to MainConcept.

MainConcept provides reliable and robust libraries for audio / video decoding, encoding and streaming. The components fulfill the exact requirements of Anyware Video's professional customer base. The integration of MainConcept's renowned SDKs for HEVC/H.265, AVC/H.264, MPEG-1/2, DVCPRO HD, DNxHD and DNxHR, and the network streaming packages supporting a wide range of common protocols across OneGenie and DubMaster products, enabled a seamless workflow and managed all tasks in the broadcast process.

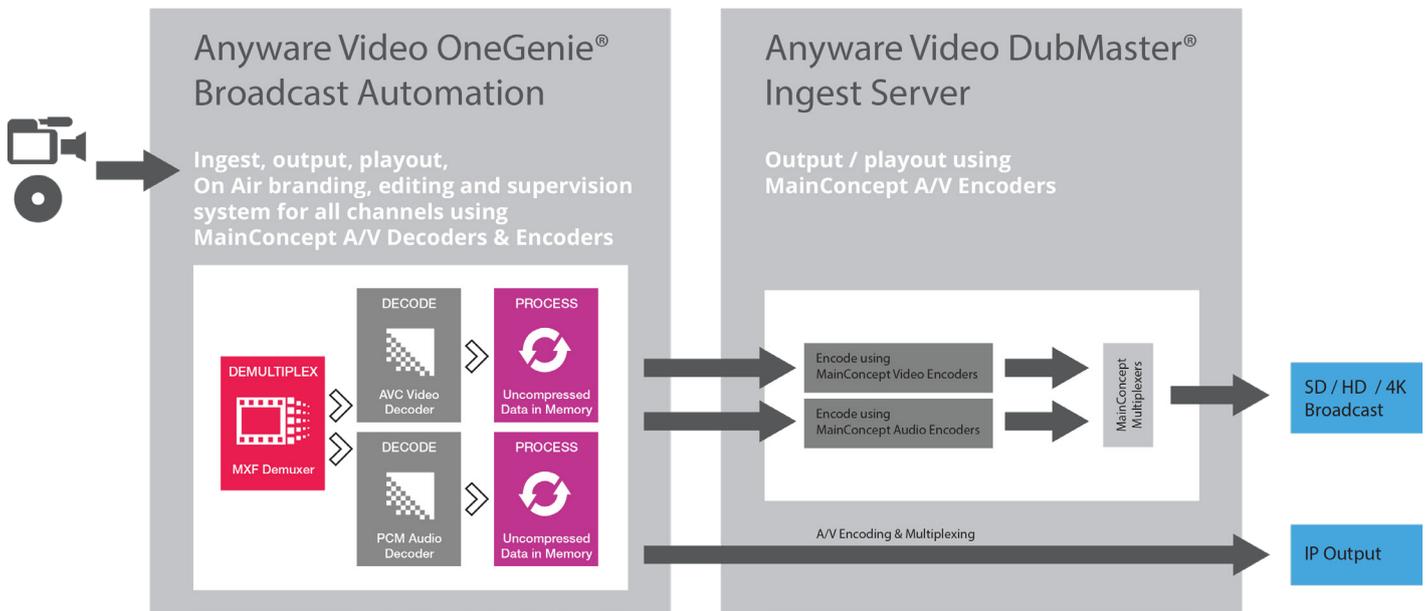
Anyware Video OneGenie is a channel-in-a-box for all applications related to ingest, playout, branding and supervision. Operators use this end-to-end solution from automation to preparation and broadcasting subtitles and on-air graphics – both in 2D and 3D. All SD, HD and 4K processes are automated, operated and monitored through a single web client, and have been designed to guarantee fully distributed architectures with remote operation and system virtualization.

OneGenie offers the perfect compromise between performance and security since it is set up with 1+1 or n+m active redundancy and provides a complete range of broadcast quality monitoring (e.g. SDI, SNMP, etc.). Operating seamlessly in IP and SDI, and supporting all standard codecs as well as formats powered by MainConcept, OneGenie provides broadcasters with the highest quality on-air graphics and automation, including a wide-range of professional features and options.

**“Our Channel-in-a-box is our flagship product and our technical expertise is recognised in the industry. We aim for the highest quality and do not settle for less. This is made easy with the quality of our relationship with MainConcept. Their SDKs are reliable and their work methodology suits us perfectly.”**

**MAMOUN DRISSI KACEMI, BUSINESS DEVELOPMENT MANAGER @ ANYWARE VIDEO**

Under the hood, the whole codec and format workflow is driven by MainConcept Decoders, Encoders, Muxers, Demuxers and the highly flexible Network Streaming components that allow Anyware Video to offer best-in-class quality of service to their customers. Managing, creating and delivering a large set of content types that additionally get packaged for any distribution channel and target audience is a key factor for high-end broadcast automation systems. To additionally serve the OTT requirements of their customers, Anyware Video licensed the MainConcept DASH Multiplexing & Packaging SDK for generating MPEG-DASH compliant streams, including manifest and MPD files.



Anyware Video DubMaster is a multi-encoding, multi-transcoding, multi-channel capable video server that is used by broadcasters - as well as in production and post-production companies - to create top quality files from diverse sources (satellites, tape ingest, studios, etc.). It allows video capture and re-broadcast into multi-format output powered by MainConcept Encoder and Decoder SDK components for IP and / or SDI feeds in SD, HD or even UHD. In DubMaster the MainConcept DASH Multiplexing and Packaging SDK is used for automatic generation and streaming of lower-resolution copies of proxy files.

Combined with its parallel multi-encoding and multi-transcoding technologies, DubMaster perfectly suits any broadcast workflow. The enormous library of codecs and formats made available by MainConcept is required for video encoding and transcoding HEVC/H.265, AVC/H.264, MPEG-2, DVCPRO HD, JPEG 2000, VC-3 for Avid DNxHD and DNxHR, among others. On the audio side, Anyware Video has integrated common codecs such as AAC, HE AAC, PCM, MPEG audio for ingesting and outputting up to 7.1 channels from their video server product, for an immersive audio experience.

Being an early adopter of the state-of-the-art MainConcept HEVC/H.265 Encoder, Anyware Video can already generate 4K footage and handle High Dynamic Range (HDR) metadata in a single process by using high-performance dual Intel® Xeon® E5 processors to power their high-end servers. Distributing encoding across many cores of the NUMA (Non-Uniform Memory Access) system, DubMaster offers live processing of UHD frames in amazing quality. Real-time ingest and decode of HEVC content up to 4K is also supported by MainConcept's playback libraries. The MainConcept codecs provide best-in-class quality and performance when utilizing the resources provided by Intel's Xeon E5 CPU family, regardless whether the encoding or transcoding in Anyware Video's software is targeted at a single installation or a highly-scalable processing environment.

Anyware Video has used a large set of MainConcept SDK libraries within their OneGenie and DubMaster solutions for many years. Due to their highly flexible yet powerful API, integration time for the Anyware Video engineering team took only minimal effort, allowing Anyware Video to easily enable their products to work seamlessly with the many different formats requested by professional broadcast clients.

Anyware Video's customers have precise expectations. They are looking for a cost-effective and reliable product line that handles multiple SD, HD and UHD channels. Using MainConcept Encoder and Decoder SDK components guarantees broad interoperability between industry standards designed for fully automated capturing, ingest and playout services.

Because of MainConcept's common and consistent API across all SDK components, extending codecs and formats is a simple task. In case of any problems or open questions, the global engineering and integration support by the MainConcept Customer Care team helps Anyware Video to proceed effectively and efficiently.



## CLOSING WORDS

MainConcept offers a codec and streaming SDK portfolio that consists of the ideal combination of extraordinary quality at an appropriate price. Our codecs and the flexible pricing model were a key factor for Anyware Video selecting MainConcept as their technology provider. The responsiveness and integral feedback of the worldwide MainConcept Customer Care team was always appreciated, as it enables the Anyware Video engineers to focus on their core task of developing a high-end video server and a broadcast automation system.

MainConcept's renowned codec library is unique in the global broadcast industry. There is no other manufacturer that offers a comparable set of different Encoder, Decoder, Multiplexer, Demultiplexer and Streaming components than MainConcept. For Anyware Video, MainConcept provides the right range of codecs, and also supports new formats. The MainConcept SDKs are the driving force behind processing almost any multimedia stream or file that is processed in OneGenie and DubMaster running on dual Intel Xeon E5 next generation processors for high-end workloads.

Anyware Video lives their motto that embracing today's world also means embracing the IP revolution in the broadcast industry. They have a long standing plan to strengthen their support of IP applications for their software from full IP architectures to cloud migrations.

For improving performance and sustainability in the future, Anyware Video is looking at Intel's Xeon Platinum 8168 CPUs for their broadcast solutions when HEVC 4K and HDR is required. The MainConcept HEVC Encoder and Decoder SDKs are optimized for multi-core server systems and gain a tremendous boost on such Intel Xeon Scalable Processors, compared to Intel® Xeon® E5 2699v4. This shows the significant value, the MainConcept Codecs and the Intel Xeon CPUs can add to Anyware Video's next generation state-of-the-art product line.



MainConcept is continuing to be the reliable partner that develops industry leading codec and streaming technologies for the broadcast market. With our unparalleled expertise in video and audio compression offering exceptional quality, the renowned codec manufacturer celebrates its 25th birthday in 2018, and still provides the best encoders and decoders currently available in the industry. The MainConcept team will proceed with its mission of developing new codecs as well as standards, while further enhancing existing formats to enable Anyware Video to make the next steps in their exciting business.

## REQUEST A DEMO:



Free evaluation downloads are available for testing.

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