CASE STUDY



Dalet | MainConcept

MainConcept[®] powers Video Server, Transcoding, Media Asset Management & Orchestration Platforms in broadcast, sports, brands and government media solutions



Overview

Dalet empowers media-rich organizations to transform their distribution workflows—accelerating media production and operations, maximizing collaboration and creating higher value from



content. As a leading media technology and service provider with over three decades of innovation, their software solutions enable greater control, enhanced visibility and increased productivity for content professionals and storytellers around the globe.

Dalet solutions power end-to-end workflows to enable key tasks in multimedia environments like ingest, editing, transcoding, orchestration, playout and distribution. In this context, media-rich organizations need to manage and deal with content in many different formats every day. Dalet enables their customers to process this format diversity with powerful, multifunctional, robust encoders, decoders and related components.

Challenges

Dalet's offerings are widely deployed in TV news, sports and entertainment broadcasting; sports venues and teams; and government, research and educational institutions as well as by online media distributors and brands. Because Dalet's products serve every aspect of the production and distribution workflow, they need to support a wide array of video and audio codecs.

While codecs are evolving continuously at tremendous speed, Dalet's customers expect their platforms to handle any type of media format as an essential part of their workflow requirements. Dealing with a wide variety of popular codec formats (e.g., HEVC/H.265, AVC/H.264, MPEG-2, VC-1, MPEG-4 Part 2, H.263 and DVCPRO HD) while enabling a seamless integration and interchangeability between all available platforms is a wellknown industry challenge.

Dalet and MainConcept have worked together for over a decade to ensure Dalet's customers' codec requirements are addressed.

PLATFORMS

- Dalet Pyramid
- Dalet Galaxy five
- Dalet Brio
- Dalet AmberFin

- News Organizations
- Content Owners/Distributors Sports Teams, Leagues and
- Federations
- Government and Institutions
- Brand and Corporations
- Radio Stations

USE CASES

- Production
- Workflow Orchestration
- Ingest/Playout
- Transcoding
- Archive
- Distribution

MAINCONCEPT SDKS:

- HEVC/H.265
- AVC/H.264 Broadcast
- MPEG-1/2
- DVCPRO HD
- MPEG-4 Part 2 / H.263
- VC-1



To continue innovating and evolving, Dalet needed a technology partner that offered a robust, flexible and reliable codec framework—constantly updated based on the latest specifications and that can be leveraged across all of Dalet's platforms. MainConcept was the right partner.

MainConcept's expertise and renowned codec portfolio went above and beyond Dalet's requirements, providing a full set of SDK components across the entire production chain while offering the right technology to overcome Dalet's customers' challenges. Moreover, MainConcept is continuously evolving their codec technologies to keep pace with the industry and help their partners stay up to date.

SUCCESS STORY

Dalet's state-of-the-art product line provides a combination of MAM (Media Asset Management), orchestration, editorial, production and distribution functionality under a single platform. The enterprise-class Dalet solutions support a large network of more than 200 connected partner technologies. This powerful integration framework with a range of open APIs unifies all tools to support all popular industry standards. TV news, sports and entertainment broadcast channels, large radio networks, sports leagues and teams, online media distributors, government agencies, studios and post-production houses as well as educational institutions and brands all rely on the flexibility provided by Dalet's products to deal with these standards. Dalet Pyramid, Dalet Galaxy five, Dalet Brio and Dalet AmberFin all leverage MainConcept's technologies to resolve codec challenges.

AT A GLANCE

- MainConcept is used for nearly all media processing workflows
- Trusted Dalet partner since 2008
- In-depth knowledge of the media production market
- MainConcept offers the world's largest library of codecs & formats
- MainConcept powers Dalet's combination of content management, editorial, orchestration, production and distribution functionality under a single platform

Following market research for a partner that offered components to handle common broadcast codecs and formats, MainConcept was Dalet's first choice. As a pioneer in codec technology, MainConcept's decades of experience and in-house expertise provided a solid foundation for the partnership Dalet desired. MainConcept's robust and reliable codec library for audio/video decoding and encoding as well as transcoding not only fulfilled the requirements of Dalet's customer base, but it provided the quality, performance, and reliability that video professionals expect. The integration of MainConcept's renowned Encoder and Decoder SDKs across multiple Dalet products allowed Dalet to implement streamlined workflows and a seamless user experience. MainConcept technology is used in a number of Dalet products including DaletGalaxy five, Dalet Brio, Dalet AmberFin and Dalet Pyramid.



Dalet Pyramid is the nextgeneration solution for Unified News Operations. Leveraging MainConcept SDKs, it powers both digital-first and linear end-to-end news workflows, the cloud-native Dalet Pyramid

solution enables a collaborative Storytelling 360 approach to production and multi-platform distribution. Dalet Pyramid's rich user experience features the breadth and depth of news production, planning, distribution and playout tools to facilitate fast breaking news across all viewing platforms. The underlying Dalet asset management and orchestration engine facilitates content flow from ingest through planning to distribution and archive. Users can contribute, produce and manage the full news story lifecycle from anywhere using smartphones, tablets and laptops connected to basic internet. The modern web-based user interface makes it easy to onboard staff and freelancers quickly, reducing training time. **Dalet AmberFin** provides premium transcoding and supply chain workflows, in the cloud or on-premises. It is a transcoder and workflow engine packaged for use where you need media conversions, on-premises—



in a Dalet-managed SaaS environment, or inside your own VPC-with pricing that adjusts from perpetual to usagebased models. Dalet AmberFin leverages MainConcept's large codec and format library for transcoding input and output for HEVC/H.265, AVC/H.264, MPEG-2, and DVCPRO HD. This includes MainConcept's broad support for professional camcorder formats from Sony and Panasonic, such as XAVC, XDCAM, DVCAM, P2 DVCPRO and P2 AVC-Intra. Dalet AmberFin can process High Dynamic Range (HDR) metadata in a single workflow. The combined solution ensures that media assets retain the highest quality from ingesting new media content to outputting 4K resolutions, with the entire process controlled and monitored by an intuitive web-based user interface. MainConcept's codecs always provide best-in-class quality and performance whether transcoding for a single application delivery or a large-scale, enterprise-class server farm.





Dalet Brio is a video server for high-density video ingest and playout. It can handle a wide range of different broadcast formats to address the demanding needs of studio production, multi-camera ingest, sports logging and highlights production. It is a cost-effective video server platform that supports multiple SD, HD and UHD channels and combines high reliability with extreme flexibility. Using the MainConcept encoder component for its loop recording workflow, Dalet Brio guarantees interoperability on the ingested media allowing editing while continuously ingesting content.



"MainConcept has proven to be a trusted partner for Dalet since 2008. Their codec library is one of the largest in the market, with an excellent balance between speed and quality. MainConcept remains at the forefront of the industry's latest codec needs, which is critical for our customers as the media format landscape keeps evolving."

MATTHIEU FASANI DIRECTOR OF PRODUCT MANAGEMENT, DALET **Dalet Galaxy five** is an enterprise-level MAM and orchestration platform leveraged by MainConcept SDKs. Its powerful engine unifies the content processing



chain by managing assets, metadata and workflows as well as providing controls across multiple production and distribution systems. Tailored specifically for news and media workflows, Dalet Galaxy five helps broadcasters and media professionals worldwide to increase productivity, collaboration and content distribution, while delivering operational and business visibility. Its Workflow Engine enables customers to streamline their processes, efficiently managing and automating a combination of end-user tasks and automated procedures. Within these flexible workspaces composed of easy-to-use editorial and production tools, the MainConcept Decoders, Encoders, Muxers and Demuxers help single users and entire teams to organize, produce and deliver a wide variety of content types, that get automatically packaged for any targeted distribution channel and audience.

Over the past decade, Dalet has used a large set of MainConcept SDK components within Dalet Pyramid, Dalet Brio, Dalet AmberFin and Dalet Galaxy five to enable media-rich organizations to deal with the many formats they require. Due to MainConcept's highly flexible yet powerful API, integration time for development was not a big challenge.

Expanding the codec offering to HEVC/H.265 lifted Dalet's product portfolio to the next level. Dalet has integrated and is now actively promoting MainConcept's HEVC/H.265 Decoder to expand their market coverage in the broadcast, production and OTT spaces.

Because of MainConcept's common and consistent API across all SDK components, extending codecs and formats is easy. MainConcept's Customer Care team provides worldwide professional engineering and integration support to help Dalet move forward quickly and efficiently.

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TAKEAWAYS

MainConcept's codec library is widely used in the broadcast industry all around the world. Licensing an extensive set of different Encoder and Decoder SDKs from a single codec manufacturer allows Dalet to build their market-leading platforms on top of the most reliable yet easy-to-integrate video technology foundation.

MainConcept's SDK components are integrated within Dalet's platforms as an essential part of their application servers, processing all types of media formats. Nearly every Dalet media workflow is based on MainConcept Encoder and Decoder SDKs. MainConcept's codec library is widely used in the broadcast industry all around the world. Licensing an extensive set of different Encoder and Decoder SDKs from a single codec manufacturer allows Dalet to build their market-leading platforms on top of the most reliable yet easy-to-integrate video technology foundation.

MainConcept's SDK components are integrated within Dalet's platforms as an essential part of their application servers, processing all types of media formats. Nearly every Dalet media workflow is based on MainConcept Encoder and Decoder SDKs. Today and tomorrow, Dalet's customers expect end-to-end workflow capabilities in their solutions, ranging from studio production to linear, OTT and VOD distribution, regardless of whether content is carried as a file or streamed via a network. For the short-term future, hot topics for Dalet are HDR adoption and ABR formats (CMAF, HLS, DASH). What has become important is to run media processing more efficiently by:

- Leveraging the cloud and moving to docker/Linux for increased elasticity and optimize infrastructure costs
- Moving to new pricing subscription/pay-as-you-go models, where Dalet customers look to track their costs based on their mediaprocessing load.

In addition, robustness, quality and throughput are key: professional media workflows require the highest quality, from the raw source material up to the final deliverable. When working in fast-paced scenarios, such as news and sports, format flexibility and speedy processing are essential. As new formats gain industry adoption, Dalet ensures that content processed through its platforms, whether for news, sports or long-form production, is optimized. At the same time, MainConcept continues to develop state-of-the-art codec technologies so broadcasters around the world can fulfill the demand for higher compression with extraordinary quality, performance and reliability. MainConcept's commitment to technical excellence will enable both companies to continue their success story.

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