



Brochure

IDOL MMAP

Media Management and Analytics Platform

opentext™

Simplify How You Capitalize on Video, Image and Audio Data

Empowering organizations to leverage rich media in gaining comprehensive intelligence by providing easy to use media analysis, management, and visualization.

The media analytics and management platform provides all components necessary to facilitate analysis, management, and visualization of large volumes of rich media allowing:

- Video analysis and enrichment
- Real-time monitoring and alerting
- Search and retrieval
- Recording and review

From a wide array of sources:

- Dedicated streaming sources:
 - CCTV cameras
 - Mobile devices
- File-based rich-media archives:
 - Voice call recordings
 - Enterprise data lakes
 - Digital asset management (DAM)
- Public domain sources
 - Broadcast TV and radio
 - Online video/audio archives
- Social media sites
 - Facebook
 - Instagram
 - Twitter
 - YouTube

Being part of OpenText™ IDOL, MMAP supports:

- **Usability**—highly intuitive and simple to use
- **Availability**—cloud, on premises, and on mobile devices
- **Performance**—industry-leading accuracy and speed
- **Enterprise**—robust scalable architecture

- **Integration**—seamlessly integrated within IDOL for comprehensive analytics across unstructured, semi-structured, and structured data sources

Use Cases

Broadcast Monitoring

Broadcast monitoring allows you to automatically monitor, analyze, and index live broadcast feeds in real time from digital sources, satellite and cable television, radio, and the Internet. Broadcast monitoring delivers the capabilities to enable you to automatically monitor multiple broadcast streams for instant visibility of breaking stories, competitor moves, and company news—in virtually any format and language.

- Rich media analysis including speech-to-text transcript highlights, entity extractions of speaker and company names, places, etc., key frame and logo detections, and on-screen text recognition
- Ability to record, store, search, and retrieve broadcast content
- Real-time alerting

Voice Call Analytics

Voice call analytics with speech recognition, processing, and management capabilities delivers insight from large volumes of voice calls. Typically a call center will handle a large number of calls a day and understanding what those calls are about can improve productivity, optimize resources, and increase customer satisfaction.

- Integration with existing recorded content retaining meta-data links
- Real-time speech-to-text for advanced text analytics including concepts, trends, patterns, relationships, categorization, and clustering
- Search and retrieval of voice calls
- Rich audio asset playback including highlighting of speakers, names, places, words etc.

SURVEILLANCE

Surveillance allows the automated monitoring of thousands of CCTV cameras, whether at fixed locations, mounted in cars or body-worn by operatives. Monitoring for particular activities, persons, or vehicles within the scene in real time or retrospectively is made easy. Items and events of interest can then be used to tag the video and send alerts. The actual evidential video can easily be reviewed and distributed as required.

- ALPR (automatic license plate recognition), VMMR (vehicle model and make recognition)
- Facial recognition and demographics analysis
- Event detection from within a scene including tripwire, zone detection, and suspicious movement tracking
- Object classification to help retrospective search
- Audio signature functions can identify the nature of the sound such as a gunshot, glass breaking, alarms, shouting
- Real-time alerting
- Search of CCTV content
- Secure recording and storage of evidential content

MEDIA ARCHIVE AND SEARCH

Huge volumes of video and audio files can be analyzed and indexed for searching. This allows more efficient use of these valuable assets within an organization or even possible commercialization of these resources.

- Integration with existing recorded content retaining meta-data links
- Speech-to-text for advanced text analytics including concepts, trends, patterns, relationships, categorization, and clustering
- Search and retrieval of video and audio files
- Rich audio asset playback including highlighting of speakers, names, places, words, etc.

SAFE CITY

Safe city is the combination of all the above use cases in addition to numerous other data sources such as sensors and databases to provide holistic and actionable insights for accelerating and improving actions against safety concerns and security threats.

MMAP Components

MMAP is a suite of media analytics and management components designed to make the use of rich media in any application as easy as possible. It consists of three layers from analytics through to visualization.

Media servers provide the ability to analyze, record, and distribute media. Management of functionality is handled by Restful API calls and visualization



Figure 1. MMAP Components

Media Server

The media server itself consists of three dedicated engines seamlessly integrated to simplify analysis of rich media. Depending on the source and type, the following configurations are used:

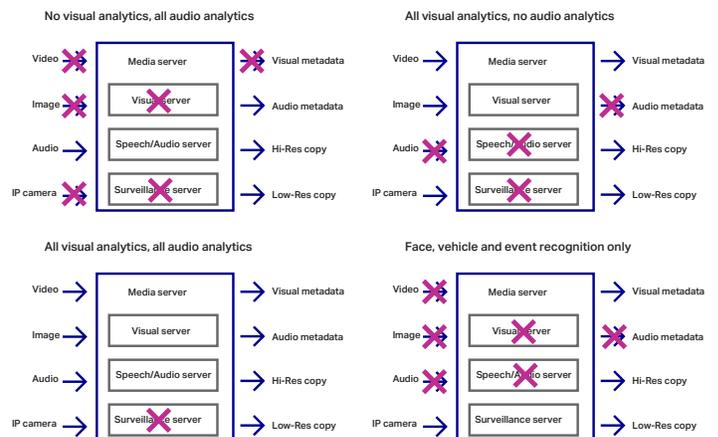


Figure 2. Media Server

The following sections describe the analytics each of the underlying servers provide for the specific to the media type.

Speech (Audio) Server

Using Web APIs the server provides analysis of audio files and streams. Integrated with IDOL Connector Framework Server (CFS) provides indexing of analysis direct into IDOL. Each server is licensed per channel of ingest and for that channel any combination of the media analytics can be applied.

Visual Server

Using Web APIs the server provides analysis and encoding of the visual components of image files, video files, and video streams, outputting analysis results to data repositories. Integration with IDOL Connector Framework Server (CFS) provides indexing of analysis direct into IDOL. Each server is licensed per channel of ingest and for that channel any combination of the media analytics can be applied. When combined with speech (audio) server licenses, visual server provides visual and audio analysis in one seamless package.

Surveillance Server

Using Web APIs the server provides dedicated video analysis and encoding for IP CCTV surveillance camera streams, outputting analysis results to data repositories. Integration with IDOL Connector Framework Server (CFS) provides indexing of analysis direct into IDOL. Each server is licensed per camera IP stream and for that IP stream any combination of the analytics can be applied.

Speech (Audio) Server

Type	Function	Description
Speech	Speech to text	Converts spoken speech to a text transcript of the most likely words
Speech	Phonetic phrase search	Converts spoken speech to a phonetic index, which can be searched against
Speech	Speaker segmentation and identification	Identifies speakers in spoken speech
Speech	Spoken language identification	Identifies the language spoken
Speech	Transcript alignment	Aligns a given text transcript with an audio file producing time stamps for all words
Audio	Audio quality and classification	Classifies audio segments as music, noise, or speech, as well as giving details on the audio quality
Audio	Audio fingerprint identification	Allows creation of an audio database for identifying audio segments
Audio	Audio security	Identifies common security threats from audio captured
Model	Language customization	Allows customization of language models used in speech-to-text operations
Model	Acoustic adaptation	Allows adaptation of acoustic models used in speech-to-text, phonetic-phrase-search operations

Visual Server

Type	Function	Description
Image	Barcode	Detect and read QR codes
Video/Image	FaceDetect	Detect faces
Video/Image	Demographics	Obtain demographic information such as age, gender, and ethnicity for detected faces
Video/Image	FaceRecognize	Run face recognition on detected faces
Video/Image	FaceState	Obtain additional information, such as facial expression, about detected faces
Video	Keyframe	Identify keyframes
Video/Image	Object	Recognize known objects in video
Video/Image	ObjectClas	Recognize known object classes in video
Video/Image	OCR	Run intelligent scene analysis to identify important
Video	SceneAnalysis	Run intelligent scene analysis to identify important events
Video/Image	NumberPlate	Detect and read license plates on vehicles, including the ability to identify color and make of vehicle

Surveillance Server

Source	Function	Description
Camera	SceneAnalysis	Run intelligent scene analysis to identify important events
Camera	NumberPlate	Detect and read license plates on vehicles, including the ability to identify color and make of vehicle
Camera	FaceDetect	Detect faces
Camera	Demographics	Obtain demographic information such as age, gender, and ethnicity for detected faces
Camera	FaceRecognize	Run face recognition on detected faces

MMAP Restful API

The management layer comprises a set of Restful APIs to control and configure your media analytic and recording on the servers above. Although MMAP is licensed in batches of 100 analytics servers it can be expanded as required. The following functions are available via the API:

- Folder management
 - Merged view of folder
 - Get folder
 - Add or update a folder
 - Move a folder
 - Delete a folder
- Camera management
 - Get camera
 - Add or update a camera

- Move a camera
- Delete a camera
- Channel management
 - Get channel
 - Add or update a channel
 - Move a channel
 - Delete a channel
- Recorder management
 - Get recorder
 - Add or update a recorder
 - Delete a recorder
- Source recording
 - Get source status
 - Assign Source
 - Unassign source
 - Camera recording status
 - Start recording
 - Stop recording
 - Channel recording status
 - Start recording
 - Stop recording
- HLS streaming
 - Get a HLS playlist
 - Get a HLS video segment
- Keyframes
 - Get a list of keyframes
 - Get a keyframe image
- Video clipping
 - Extract video clip
 - Create video clip
 - Download video clip
- Frame extraction
 - Extract frame image

HTML5 Visualization Widgets

OpenText™ MMAP comes with three visualization widgets designed to work together synchronously in HTML5-based applications:

- Media player
- Timeline widget
- Transcription widget

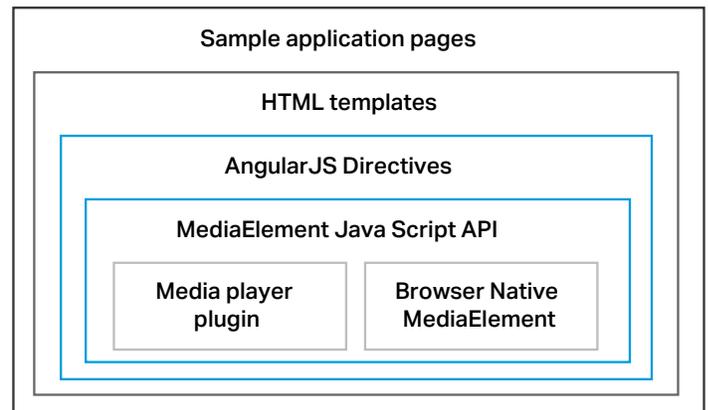


Figure 3. HTML5 Visualization Widgets

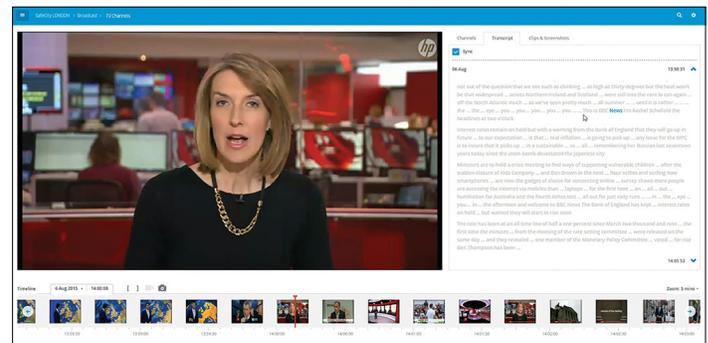


Figure 4. Multiple levels of technology

These widgets are supplied with the ability to integrate at multiple levels of the technology stack to suit the media analytics application requirements and include levels up to and including a sample application. Automatic time synchronization between each widget and its content gives a dynamic user experience without the need for complex coding within the application itself.

Media Player

The OpenText™ Media player (requires Chrome browser) extends functionality beyond the standard HTML5 video element. It will automatically load in applications and does not require acknowledgement or acceptance as a plug-in, simplifying the user experience.



Figure 5. Media Player

Timeline Widget

The OpenText™ Timeline widget provides navigation within the media stream as well as visualization of activity. It directly controls the media available in the OpenText Media player and exposes the advanced features such as UTC time seeking, reverse play back and frame accuracy. The Timeline widget can also be used with native media player elements that do not support the advanced features.

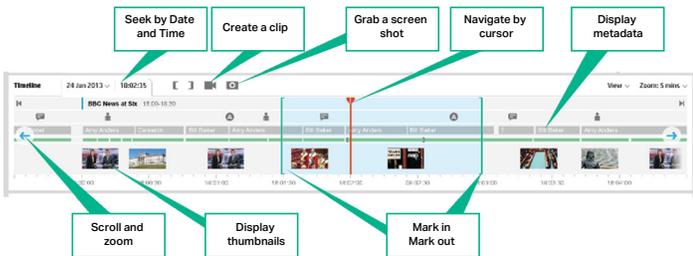


Figure 6. Timeline Widget

Transcription Widget

The OpenText™ Transcription widget displays transcriptions generated by the speech-to-text analytics, highlighting the words in the content that are being spoken in the media player.

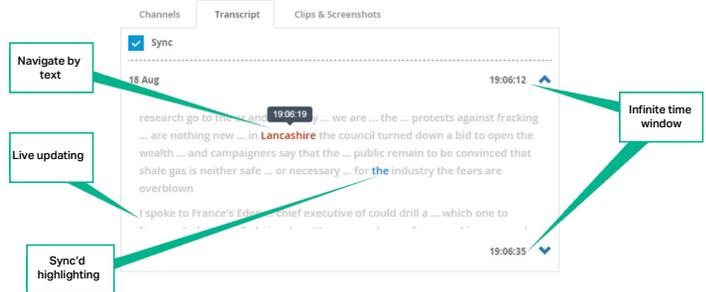


Figure 7. Transcription widget

OpenText Rich Media Analytics SKUs

SKU	Products	Description
H9L90AAE	HPE MMAP 100 analysis servers	HTML media widgets, media management APIs, and 100 media servers enabled for audio and video recording only. These servers can be upgraded with analytics using the products below.
H9L88AAE	Visual server	Enables all video and image analytics for use on image files or video files and streams. This is a functional upgrade to any media server.
H9L89AAE	Audio server	Enables all speech and audio analytics for audio and video files and streams. This is a functional upgrade to any media server.
H9L87AAE	Surveillance server	Enables ANPR, face, and event analytics specifically for CCTV camera streams. This is a functional upgrade to any media server. Supplied in packs of 10.

Note: SKUs for perpetual licenses, support for Windows Server (2012, 2008) and Linux (CentOS, Ubuntu) 64 bit OS.

Learn more at
www.microfocus.com/richmedia
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[OpenText CEO Mark Barrenechea's blog](#)

