

# **GeoMedia Motion Video Analyst Professional**

Incorporate motion video into your GIS analysis







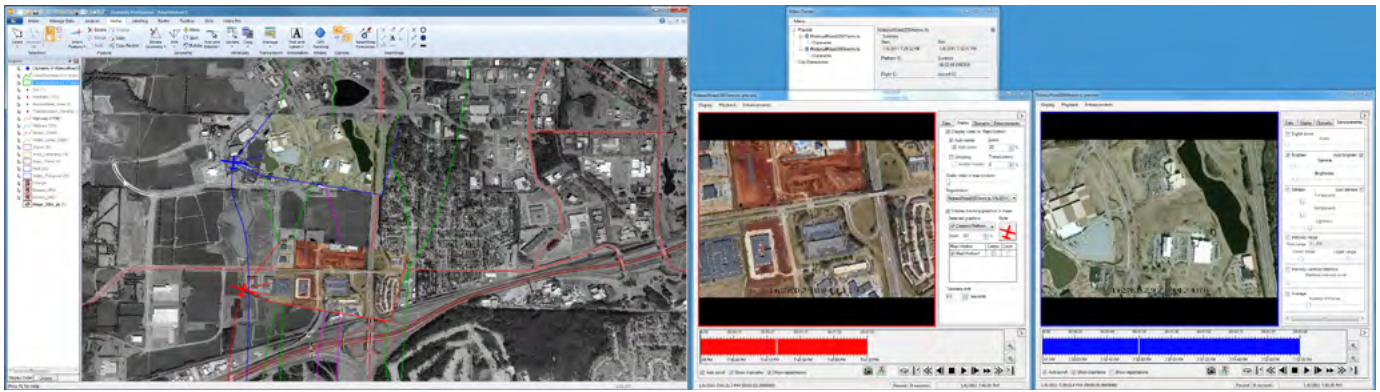
## Overview

GeoMedia Motion Video Analyst Professional from Hexagon provides a high-productivity environment for analysis of full motion video (FMV) taken from unmanned aerial vehicles (UAVs). Agencies, military and commercial organisations can use it to exploit and analyse the video for near real-time decision making. GeoMedia Motion Video Analyst Professional provides a seamless multi-source environment for the analysis of all types of geospatial data, including raster maps, vector data, full motion video, satellite imagery and signals intelligence. It is well suited for conducting advanced analysis on all sources of geospatial data by integrating motion video with geospatial data to generate a common operational picture (COP).

## Superior management of geospatial content

A critical factor in video analysis is the ability to easily query through vast archives of video to find specific clips. GeoMedia Motion Video Analyst Professional stores all tracking information associated with the video, including aircraft trackline, camera angle, video trackline and video path polygon, so you can easily locate the exact video you need for pattern-of-life analysis or change detection. GeoMedia Motion Video Analyst Professional even handles multiple live video feeds<sup>1</sup> simultaneously, which lets you leverage video from drones that support that capability, and fuse the imagery with other geospatial data. The result allows you to quickly zoom to any part of the world – possibly even down to a street corner – and instantly queue up segments from collected video from the last 10 days that pertain to that location. Then, you can fuse those results with satellite images and other data and effectively plan your action.

<sup>1</sup> Catalina video server is required for support of live video feeds



Graphic displays of full motion video and its associated tracking graphics are geofused with other forms of geospatial information to provide an instant view of the common operational picture.

## Instant and accurate real-time enhancements information

In some cases, even with superior content management and powerful data integration and visualisation tools, poor quality video can hamper your analysis. For example, the original captured video may be of poor quality – or even unusable – due to flight path, altitude, buffeting of aircraft and other factors. To mitigate this problem, our technology works in a modular, pipelined fashion to perform real-time enhancements and corrections on the video such as removing atmospheric distortion, correcting for shadows that affect brightness and contrast, and stabilising jittery video. This state-of-the-art technology increases the usefulness of UAV video in a real-time and forensic capacity. Setting thresholds, tolerances and other parameters along with performing tasks interactively, helps you handle the ever-increasing volume of video that must be processed for analysis.

## Create, store and retrieve annotations

Knowing when an event occurred is as important as knowing where it occurred. The ability to place annotations and clipmarks within a video stream and save them is essential to intelligence analysis. Annotations are searchable by geospatial and temporal location, which is key to strategic and tactical planning.

## Video ingest

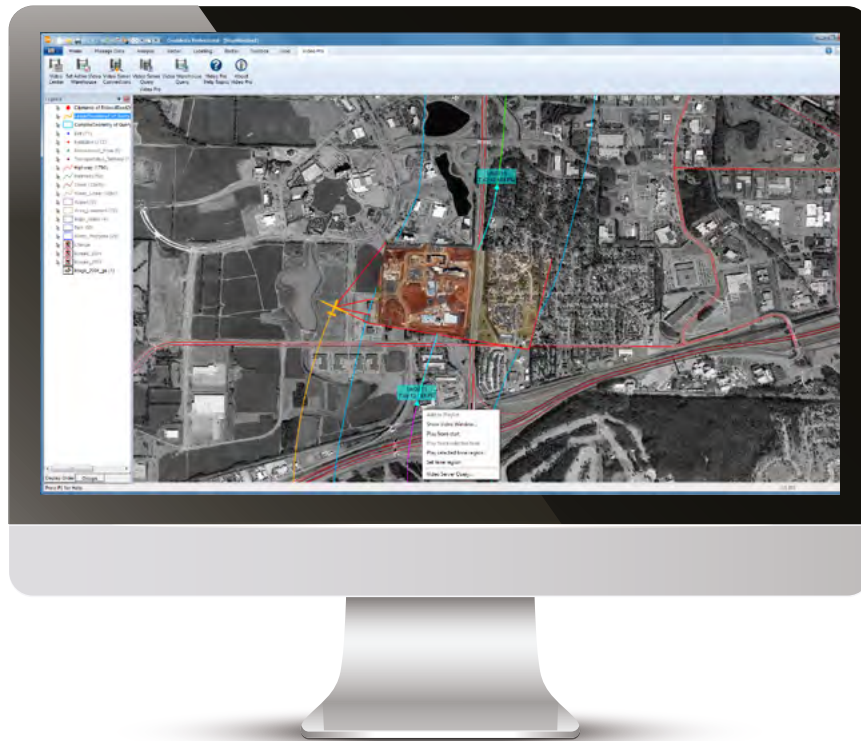
You can import video into GeoMedia Motion Video Analyst Professional for real-time analysis and exploitation. When you need video for trend awareness, analysis and change detection, the motion video connection interface allows you to geospatially query in multiple ways:

- By a geographic minimum bounding rectangle in which you key in or draw in the map window
- From a center point and radius in which you can also key in or draw in the map window
- By entering a Military Grid Reference System (MGRS) location

Additionally, you can specify a temporal filter to find video from a certain day and time. Other attributes, such as camera angle, clipmarks or annotations, can help you locate only the videos that apply to a specific area, item or event of interest.







Geospatial vector representations are stored with each full motion video and available for query. You can use the centerline feature to specify what segments of the video to play, as shown here.

## Video enhancement and stabilisation

Often, video needs to be stabilised and enhanced before analysis is possible. GeoMedia Video Motion Analyst Professional includes patented enhancement and stabilisation algorithms with a proven track record over many years in the public safety and security industries. The application allows analysts to remove shaky motion and atmospheric distortion, as well as enhance poor quality motion imagery with tools such as brightening, dehaze, frame averaging and intensity centroid stabilisation in real-time as the video is played.

Automatic enhancements, zooming and centering allow the operator to focus on video analysis and let the software continuously optimise the viewing environment.

## Clipmarking and annotation

GeoMedia Motion Video Analyst Professional provides initial review capability for incoming video, such as placing clipmarks and extracting single-frame images and clips. Once the video is ready for analysis, the ability to place clipmarks to identify items or events of interest is important.

The software provides user-definable predefined clipmarks and associated hot keys for common items of interest. The use of hot keys eliminates the need for mouse clicks and typing, and enables quick reaction to items of interest. You can also create custom clipmark names and associated text. Clipmarks, as well as their associated annotations, are geographically located along the video centerline, which makes them searchable by geographic location and time in addition to textual content. Send clipped and annotated video for further analysis and reporting. You can also treat the clipmarks and annotations as permanent intelligence data and store them in a database application for access throughout the enterprise and historical research.



## Fusing video with other intelligence sources

GeoMedia Motion Video Analyst Professional gives you the ability to fuse video with other types of geospatial data, including raster maps, vector data and satellite imagery. With the unique ability to display motion video, both as raw frames in a video window and as georeferenced frames fused with other data in a map window, you can gain an understanding of the video's geospatial context. GeoMedia Motion Video Analyst Professional integrates seamlessly with the high-performance Electronic Light Table (ELT) of GeoMedia Image Professional for producing reports from snapshots extracted from video and annotated with video intelligence and map information. This allows you to create reports and actionable intelligence in minutes rather than hours, with a few button clicks in a single integrated environment without having to manually switch between different applications.

## Archiving and managing video

Once you have stabilised, enhanced, geofused, analysed, clipped and annotated the video, you can catalogue and store the files, footprints, frame centerlines, sensor centerlines and/or frame centroids and associated data. Annotations, clipmarks and frame-specific telemetry will be stored with the video file so you can easily query the video for further analysis.

## Instant and accurate real-time information

- Fully exploit video and imagery data in one seamless, geofused environment.
- Leverage our advanced video enhancement and stabilisation capabilities.
- Discover a new geospatial context in which to review incoming video data from files or live streams.
- Geographically track the movement of your aircraft, the camera angle and other relevant geospatial information, in a single homogeneous environment.

- Geofuse your video over vector data, raster maps and still imagery and watch it play across your map in context with other geospatial data.
- Capture relevant snapshots and clips of imagery and video for additional analysis and reporting.
- Query your video data by attribute, annotation, time and geospatial location.
- Automatically enhance your motion video for superior analytical results.
- Visualise and archive all geographic data relevant to your video.
- Watch your video simultaneously in a video window and a map window.
- Control your motion video with familiar DVR-like controls.
- Mark your video for further analysis and historical query capabilities.
- Extract image mosaics from your video data segments (requires stable telemetry).
- Annotate your item or event of interest with a searchable geospatial definition.

## Contact us



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Hexagon is a global leader in digital reality solutions, combining sensor, software and autonomous technologies. We are putting data to work to boost efficiency, productivity, quality and safety across industrial, manufacturing, infrastructure, public sector, and mobility applications.

Our technologies are shaping production and people-related ecosystems to become increasingly connected and autonomous – ensuring a scalable, sustainable future.

Hexagon's Geospatial division creates solutions that deliver a 5D smart digital reality with insight into what was, what is, what could be, what should be, and ultimately, what will be.

Hexagon (Nasdaq Stockholm: HEXA B) has approximately 21,000 employees in 50 countries and net sales of approximately 3.8bn EUR. Learn more at [hexagon.com](https://www.hexagon.com) and follow us @HexagonAB.