

# video analysis

Using a scientific approach, tested methods and state-of-the-art tools, MEA Forensic's experts routinely extract precise information from video. These days, many of the events that we investigate, from car crashes to shootings, are caught on camera. While these recordings often show what happened, detailed analysis is needed to quantify event timing, object positions, and motion; that's where we come in.

Our analysis typically starts with a thorough interrogation of the video file itself to identify any effects of formatting or compression, and determine fundamental metrics like frame rate. Often, we can improve image clarity, stabilize shaky video, correct lens distortion, account for irregular frame rates, and track objects. With the video fundamentals established, 3D photogrammetry techniques, like camera perspective matching and 3D scene reconstructions, can be used to accurately quantify the positions, motions, and speeds of objects in a video.

Video work is highly visual, often resulting in powerful graphics and animations that can be used to effectively communicate results. And because the analysis is supported by hundreds of hours of specialized training, research and engineering experience, the opinions of our experts stand up in court.

## Video Analysis Tasks:

Stabilize shaky video

Synchronize multiple videos

Correct aspect ratio

Interpret frame timing

Extract metadata

## expertise contact

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## associated professionals

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Correct lens distortion

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Match camera perspective

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Determine event sequence and timing

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Measure object positions

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Photogrammetry

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Quantify fall, failure or crash dynamics

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Calculate vehicle speeds

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Analyze and synchronize audio

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Video exhibits with overlays and annotations

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## **Common Sources of Video Include:**

Body-worn cameras

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CCTV surveillance systems

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Cell phones

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Collision Avoidance Systems

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Dashcams

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GoPro action cameras

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Home security systems

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Online services like YouTube

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