

Exhibit 34
(McKay Report)

Re: Robinson Case

Forensic Services

Prepared for: David B. Owens
Loevy & Loevy

Case Received: 02/06/2016
Report prepared by David McKay
Blackstone Forensics Ltd.

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Request:

The writer was contacted by D. Owens of Loevy & Loevy with a request to evaluate the accuracy of the synchronization between the audio and video in the file labeled "15-1188.wmv". The file was in a Window Media Video format (.wmv) and had a resolution of 1280 pixels by 720 pixels and included one video track from a single camera view and one, two-channel audio track. The writer also evaluated the processed audio from Sgt. Gary's microphone labeled "15-1188 Processed Audio.wav" and the proprietary video recording from Officer Kenny's dash camera system.

The writer reviewed the DCI Report and Deposition Testimony of Wisconsin Department of Criminal Investigation Forensic Examiner Larry Flessert to determine the process used by the forensic examiner to produce the file labeled "15-1188.wmv". The writer reviewed Sgt. Jamar Gary's deposition testimony, as well as Exhibit 16 to Sgt. Gary's deposition to determine the approximate location of the microphone that audio recorded the events during the incident.

Qualifications:

A copy of the writer's C.V. is attached to this report.

Analysis:

The writer imported the video file labeled "15-1188.wmv" into a non-linear editing program called Sony Vegas Pro for review purposes, this is the same program used by Mr. Flessert to conduct his audio and video synchronization. Sony Vegas Pro is one of the commonly used software programs in the field of forensic video analysis to examine, evaluate, and output video and audio based media for forensic evidence purposes. Sony Vegas Pro allows the writer to view the video and audio tracks separately on a timeline based interface. Sony Vegas Pro is commonly used to combine audio and video tracks together into a single playable sequence. When done correctly, the process of visually synchronizing audio and video tracks within the Sony Vegas Pro software is considered highly accurate and reliable.

To synchronize the audio and video tracks together the examiner will look for a visual reference point within the video that can be lined up with the corresponding audio event. In this case a visible muzzle flash that can be seen on the video is lined up with the corresponding audio of this event. By observing a visual representation of the audio sound, which is represented by a frequency spectrograph, the examiner can use this visual representation of the audio to line the sound up precisely with the corresponding event happening on the video.

In this case, based on a visual analysis at the frame level of the audio and video synchronization, it appears that the audio and video are well-aligned based upon the reference point used. The following image (fig 1.) provides a screenshot of the alignment point used between the audio and video:

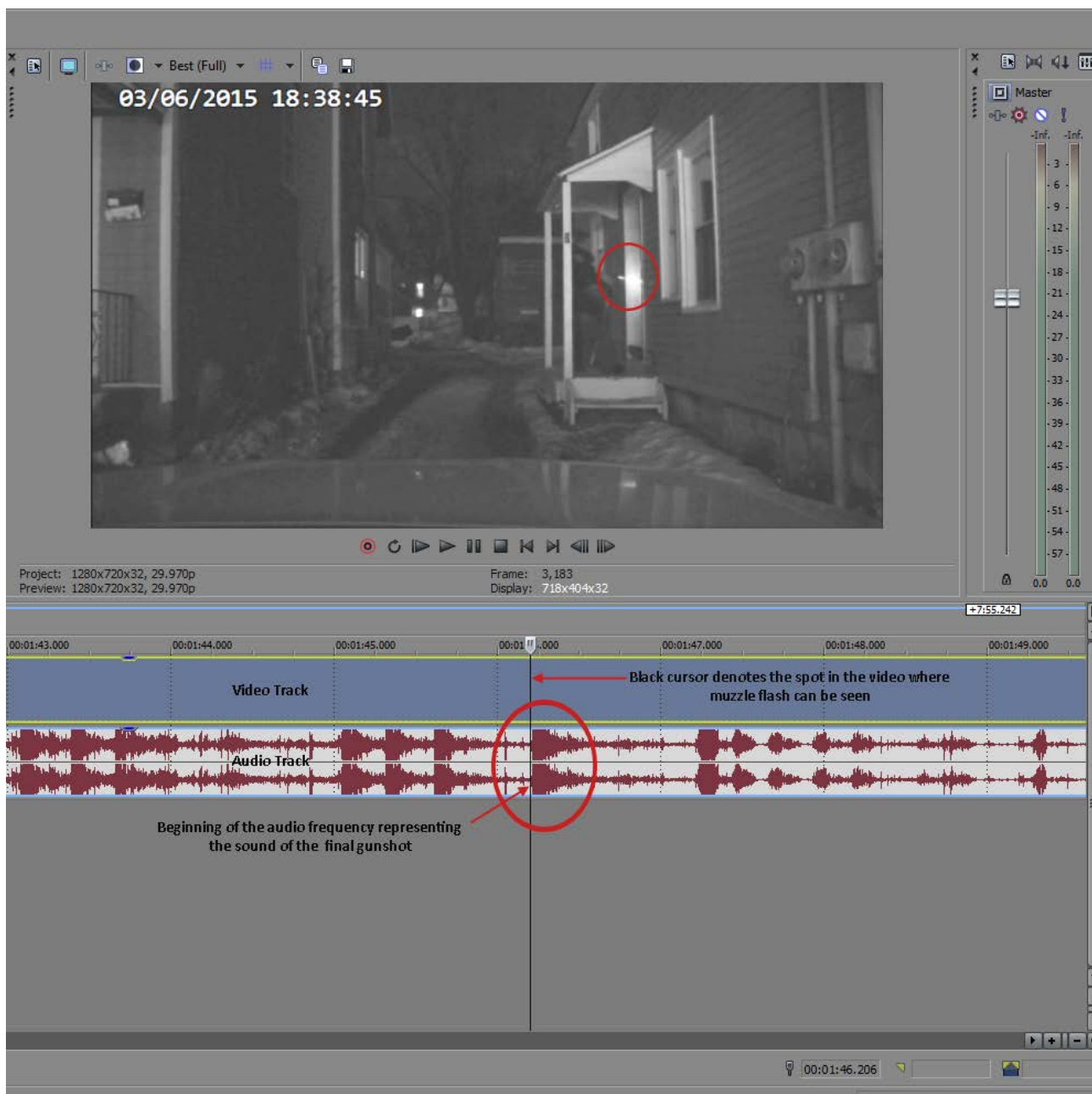


fig. 1

As can be seen in the image above the muzzle flash is almost in perfect alignment with the corresponding audio event depicting the sound of the gunshot. Furthermore the image below (fig. 2) shows that the examiner did not line up the audio of the gunshot with the flashlight beam that appears a fraction before the muzzle flash is seen in the image above:

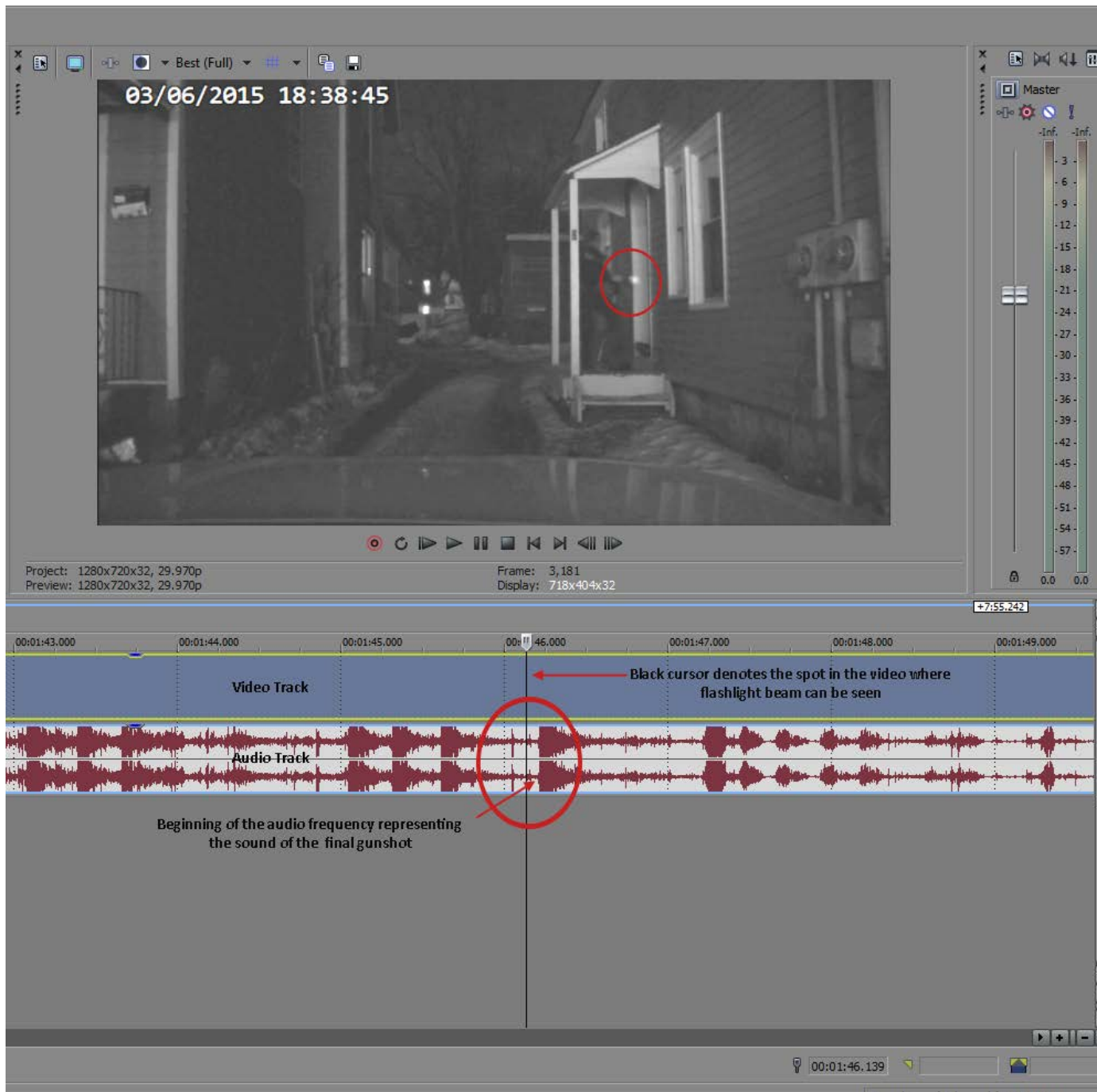


fig. 2

In this sort of situation, no synchronization can be absolutely perfect since it is done visually and will be a subjective process. In this case, there is a very, very slight discrepancy in the alignment. This slight discrepancy was observed by the writer at approximately 18:39:02 on the video (frame 3,694) when the police officer yells the words "Get Back". It appears that the discrepancy in the synchronization at this point is at most 7 or 8 frames or .267 of a second out of alignment.

There are a number of factors that may explain this slight imperfection in the synchronization:

1. The process used to synchronize the audio and video is largely a visual process, so slight discrepancies would not be uncommon when trying to visually line up what is occurring on the video with the spectral frequency data that represents the corresponding audio event.
2. There will always be the potential for a slight synchronization error since light travels faster than the speed of sound. The visual information would reach the camera sensor more or less instantaneously, and depending on how far away the microphone is from the source event, there may be a slight delay in the sound waves reaching the microphone. Based on the speed of sound this discrepancy is around 1 second for every 340 metres (or approximately 1,116 feet). Even then, this delay would be very difficult to pick up with the naked eye. In this circumstance, the microphone was at most a small fraction of this distance so any delay between what can be seen on camera and what was recorded by the microphone would be extremely small, most likely within a fraction of a second.
3. A slight discrepancy may also be caused by variation in playback speeds (frame rate) of the separate video and audio recordings when they are combined together into a single format; since they are two separately recorded instances of the same event that may have their own unique parameters with respect to frame rate (note: this will depend on the type of device that captured each independently). Any discrepancy due to varying playback speeds between the video and audio may increase over time the further you move away from the initial sync point (which was the muzzle flash) . If this is the case, the further along the video goes it will become more and more out of sync. At one point the writer was able to determine (visually) that the video and audio were out of sync by approximately 48 frames or 1.5 seconds. However, this is at a time period in the video that is about 2 minutes and 47 seconds after the point used for syncing the video (the muzzle flash on the seventh shot). Within the 10 seconds on either side of the point of synchronization (including the time before the first gunshots can be heard and then well after), any error caused by this effect would be extremely small—milliseconds or, put differently, a fraction of a second around the point of initial synchronization.

Using a process similar to that outlined in Mr. Flessert's report the writer created an independent audio-video synchronization of the shooting incident using the final muzzle flash as the main reference point. The writer also checked the synchronization with a secondary reference point which is the moment after the shots are fired and a second officer yells "Get back". The synchronized video created by the writer was virtually identical to Mr. Flessert's attempt, with respect to the timing of the final muzzle flash and the corresponding sound of the final gunshot. This created video is labeled "15-1188 Synchronized".

Conclusion:

After a review of the materials provided to the writer, a frame by frame analysis of the synchronized audio and video file, and through conducting an independent synchronization process, it is the writer's opinion that the audio and video were correctly and accurately synchronized by Mr. Flessert. Furthermore, Mr. Flessert used a process to produce this synchronized video which would be considered an acceptable method within the field of forensic video analysis.

The slight discrepancy observed in the synchronized video produced by Mr. Flessert is well within the range of

what is considered acceptable when doing a synchronization of this nature. All in all, the writer is confident that the processes used by the forensic examiner in this case to synchronize the audio and video are correct, and furthermore do provide an accurate representation with respect to the audio and video that was captured in relation to the incident in question.



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