



Dashcam Viewer

Version History

Version 4.0.7 – September 1, 2025

New Camera Supports:

- Added support for YDI MC10 dashcam
- Added 2-channel PiP support for Vantrue E2

New Features:

- **PRO:** Added new Elevation Grade graph. If the dashcam or action-cam supports Altitude data, Dashcam Viewer PRO will now display a graph of Elevation Grade in addition to Altitude. Elevation Grade is a plot of elevation slope, which is based on altitude data. Special controls have been added to the Preferences menu to control how the grade is computed and smoothed.
- Increased precision from 3-digits past the decimal to 8 in the latitude/longitude data written to the EXIF block when performing a JPG snapshot.

Bug Fixes:

- Fixed bug in DCV Plus version in which the red motorcycle was replaced by a silver car as the compass pointer
- Fixed lockup that could occur when loading small videos
- Fixed tab ordering issue in Preferences window if some tabs were hidden

Notes:

- Added front/rear PiP display support for Cobra HD2216D; however, GPS data display may not work yet.
- Improved support for ROVE R2-4K but issues still exist. Work in progress

Version 4.0.6 – March 15, 2025

New Camera Supports:

- Added support for Kenwood DRV-A510W 2-channel
- Added support for GoPro HERO 13 GPS data

New Features:

- Click-to-Go is now enabled on the Map display by default.
- [*PRO version*] Added 5 new compass pointers to the PRO version of Dashcam Viewer (2 airplanes, bicycle, boat, scooter).

PRO version:



Bug Fixes:

- [Windows] Fixed bug in which GPS data was not read properly for very large video files. This bug was reported with a Viofo A229 Pro dashcam.
- Fixed bug in which the weather report at time of drive was off by the timezone difference relative to UTC.
- Fixed crash that could occur if user zoomed the video too far.

Version 4.0.5 – Dec 02, 2024

New Features:

- Added a “Cancel” button to the Video Load progress bar. Clicking the button will abort importation of a large set of video files. The video files that have been loaded up to that point will still be processed and displayed.

Version 4.0.3 – Nov 16, 2024

New Camera Supports:

- Added support for Miofive S1 Ultra 2-channel dashcam

Bug Fixes:

- Fixed bug that would crash Dashcam Viewer when loading a Miofive S1 video that had not yet acquired GPS signal.

Version 4.0.2 – Nov 11, 2024

New Camera Supports:

- Added support for Miofive S1 dashcam
- Added support for Viofo A229 Pro with latest firmware (fixes unrecognized 2nd channel video)
- Recognizes Innovv K3 "parking" mode and "accident" mode front/rear files.
- Recognize 12x timelapse mode (supported by Vantrue E1)

Bug Fixes:

- Changed the way that DCV ascertains GPS data encoding scheme. Now the midpoint file of the video group being loaded is examined for GPS data instead of the first video. The rationale is that the first video is more likely to have incomplete GPS

data so choosing the mid file is more promising for detecting data encoding scheme.

- Minor improvements to Reset Window Positions and Clean Up Windows functions.

Version 4.0.0 – July 7, 2024

- First release of Dashcam Viewer built specifically for Apple Silicon CPUs

New Camera Supports:

- Added support for NextBase 380GWX
- Added support for NextBase 412GW
- Added 2nd channel support for Innovv K6 (note: this dashcam does not have GPS)

Bug Fixes:

- Added fuzzy search for 2nd channel of DOD GS980 dashcam. This makes 2nd channel detection more accurate.
- Fixed issue with Audio Detection. In some cases, the Audio Detection process was not invoked properly.
- [Mac] Restored Google Maps functionality. Still a work in progress for Windows version.
- [Mac] Fixed issue with JPG/PNG image capture area being shifted when selecting Export Image from toolbar.
- [Mac] General GUI improvements and tweaks due to updated GUI framework

Version 3.9.8 – May 27, 2024

New Camera Supports:

- Added support for DOD GS980D
- Added 2nd channel detection for YeeCore D22
- Added 2nd channel detection for Thinkware F800 Pro (a.k.a., Alpine F800 Pro)
- Added 2nd channel detection for Viofo A229 Pro, latest firmware

Bug Fixes:

- Fixed bug when creating new geotag that would label the geotag "Untitled Event" even if the option to lookup address was selected. This bug was due to the reverse geocoding service no longer being available. A replacement reverse geocode service was found and the capability restored.
- Fixed bug when creating a new geotag in which the geotag pushpin would not appear on the map. This was due to the removal of numbered markers URLs by Google.
- Removed Google Maps option in the Maps view due Google killing the Maps API that was compatible with built-in browser in Dashcam Viewer. Until a workaround is found, MapQuest is now the default Map option. PRO users can also select OpenStreetMaps.
- Now if the GPS data in the video is 'bad' (all zeroes, for example) a cache entry will not be created. This prevents bad data from being loaded from cache.

Version 3.9.7 – March 17, 2024

New Camera Supports:

- Added support for Viofo A119 Mini2
- Added support for Viofo A139 Pro
- Added support for Cooau D30

Version 3.9.6 – January 11, 2024

New Camera Supports:

- Added support for Thinkware U3000 dual-channel
- Added support for LAMAX S9 Dual channel

Bug Fixes:

- Improved support for RoadHawk HD in which the GPS data contains bad timestamps

Version 3.9.5 – November 22, 2023

Bug Fixes:

- Fixed issue with Google Maps suddenly failing to load. The symptom was the Map window would come up blank. (Mapquest and OSM maps still worked). This affected all previous versions of Dashcam Viewer. The issue was due to Google pushing out an update of the Maps API which was incompatible with web engine.

Version 3.9.4 – November 10, 2023

New Camera Supports:

- Added support for MIO MiVue 955WD 2-channel (GPS data)

Bug Fixes:

- Fixed bug with Garmin dashcam's in which the displayed timestring in the main window was offset by the video's duration time.
- Raised max value on Distance graph to 1000 km or miles. Was previously limited to 200 km or miles.
- Fixed bug in distance reporting of Trip segments.
- Internal stability improvements.

Version 3.9.3 – August 26, 2023

New Camera Supports:

- Added support for INNOVV K5 with newer firmware that encodes GPS data in a slightly different way. (MP4 format)

New Features:

- Using the 'p' key shortcut to export an image will no longer bring up the OpenDirectory dialog. Instead, the image will be exported silently to the last export directory specified by the user when clicking the Export Image toolbar button. If no directory has been specified yet, the Desktop will be the default.

[Requested by user]

Bug Fixes:

- Switched historical weather service from DarkSky.net to VisualCrossing.com. DarkSky ended service on March 31, 2023 so Dashcam Viewer's weather widget had been non-functional since then.
- [Windows] Fixed bug in which using Fullscreen mode would lead to the user being locked out of the program (the Main Window would be non-responsive to clicks).
- Extended valid time range from 2010 to 31-Dec-1999 to accommodate GoPros that don't have Date/Time set.

Version 3.9.2 – June 24, 2023

New Camera Supports:

- Added support for Transcend DrivePro 250
- Added support for BMW Advanced Car Eye 3.0 Pro
- Added support for ROVE R3
- Reported compatible with MiVue J60, MiVue J85
- Reported compatible with BOBLOV F2
- Reported compatible with Porsche Dashcam

New Features:

- The trips listed in the Control Center Trip List now include the total trip distance.

Bug Fixes:

- Improved stability when loading many videos at once.
- A video corruption check is now performed when loading a set of videos. If Dashcam Viewer cannot determine the duration of a video, instructions are provided to remedy the situation. A corrupt video will appear as a video with a duration of 00m-1s in the video list.

Version 3.9.1 – March 19, 2023

Bug Fixes:

- Fixed bug in dashcam model detection for Viofo A139 and Vantrue X4S, N4 which could lead to no GPS data being loaded or displayed.
- For Vantrue N4 and Viofo A139Pro 3-channel dashcams, the third channel video is no longer intermixed in the list of loaded videos. Since Dashcam Viewer is currently limited to displaying up to 2 channels, having the third channel in the video list caused confusion.

Version 3.9.0 – January 23, 2023

New Camera Supports:

- Added support for Vantrue N4 (two channels)

New Features:

- DTS format: Added ability to augment a video with user-specified GPS and G-Force data in an XML-based file format called DTS. This is similar to GPX except it supports acceleration data and extended GPS metrics, HDOP and numSatsInView. See User's Manual for more information.

Bug Fixes:

- Improved scaling of data in G-Force graph. Data is now scaled based on max/min of each axis.
- Removed support for Wolfbox G900

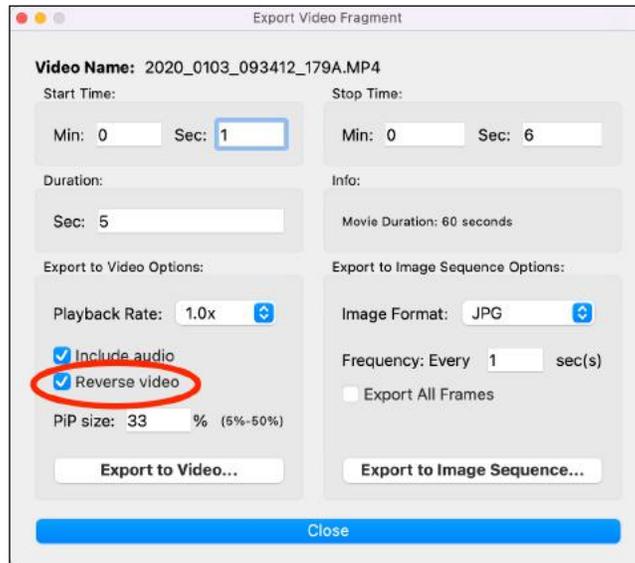
Version 3.8.9 - January 7, 2023

New Camera Supports:

- Added support for INNOVV K3 "keep" files in TS format
- Added preliminary support for Wolfbox G900

New Features:

- [PRO] Added ability to reverse an exported a video clip



New "Reverse Video" option for exported clips (PRO version only)

Bug Fixes:

- Fix for Vantrue X4S with newer firmware so that GPS data is detected.

Version 3.8.8 - October 17, 2022

New Camera Supports:

- Added support for VIOFO A229 Duo

- Added support for Vantrue X4S Duo
- Added support for INNOVV K2 parking mode videos

Bug Fixes:

- Improved GPS data integrity checking. Errant points are more readily detected and mitigated.
- Fixed bug which could incorrectly flag a data point as ‘bad’ even though it had a valid speed.
- Prevent crash when loading AZDOME PG02 videos. Still haven’t decoded the GPS data (if it’s even there) but at least DCV doesn’t crash!
- Fixed bug in which 2nd channel of Mio MiVue dual dashcams would not be recognized.
- Better support for time-lapse mode videos. Now mouse clicks in Graph, Map, and “Jump To” menu move to the correct place in the video.

Version 3.8.7 – August 17, 2022

New Camera Supports:

- Added support for Thinkware X1000 and U1000
- Reported compatible with VANTRUE Element 1 (E1)

New Features:

- [Free, Plus versions] Added new red motorcycle compass pointer icon. User can toggle between the automobile icon and the motorcycle icon by clicking the compass.
- [PRO version] Added the new red motorcycle compass pointer icon plus 17 additional icons. See list below:



Bug Fixes:

- Improved heuristic that detects time-lapse mode in videos.

Version 3.8.6 – June 26, 2022

New Camera Supports:

- Added support for VIOFO MT1 2-channel
- Added support for VSYSTO Dual Dash Cam (B6)

Bug Fixes:

- Correctly pair "E"mergency videos for BlackVue DR750X-2CH

Version 3.8.5 – April 18, 2022

Bug Fixes:

- Rewrote the Front/Rear video pairing heuristic for 2-channel dashcams to be more accurate.
- Fixed bug in v3.8.4 in which Viofo Plus Duo Front/Rear videos were not paired.
- Fixed bug in which Blueskysea B1M videos were not properly paired.

Version 3.8.4 – April 1, 2022

New Camera Supports:

- Added support for Vantrue X4S

Bug Fixes:

- Optimized processing videos when they are first loaded to improve speed and accuracy of sorting.
- Fixed bug introduced in v3.8.3 which prevented two-channel videos from the INNOVV K2 from being properly separated.
- Improved memory of 2nd channel video widget position such that the 2nd channel window position and size are preserved between runs.
- Improved behavior of the 2nd channel video widget such that it should no longer disappear (this happened infrequently).

Version 3.8.3 – March 20, 2022

New Camera Supports:

- Added support for RedTiger F7N

New Features:

- Improved precision of cumulative distance in the Speedometer. Distances less than 1 mile or 1 km are expressed in feet or meters, respectively. More digits past the decimal are shown for distances less than 100 miles or km.
- The second channel video widget size and position are now remembered between program relaunches.

Version 3.8.2 – February 18, 2022

New Camera Supports:

- Added support for Viofo T130
- Added support for Vantrue N2S
- Added second channel support for Blueskysea B4k
- Reported compatible with Garmin 57

New Features:

- Added zoom-in and zoom-out toolbar buttons for both the main channel and the second channel videos.

Version 3.8.1 – Jan 8, 2022

New Camera Supports:

- Added support for Nexar Beam Dash Cam.

Bug Fixes:

- Improved support for long duration videos (15 min) on INNOVV K5
- [macOS] Fixed build issues with Mac Dashcam Viewer introduced in v3.8.0 (Intel build).
- [macOS] Temporarily removed Apple Silicon version of Dashcam Viewer to perform additional regression testing. In the meantime, please use the Intel version of Mac Dashcam Viewer which works well on M1 Macs.

Version 3.8.0 – Dec 20, 2021

New Camera Supports:

- Added support for YEECORE D21 dashcam.

New Features:

- [macOS] Dashcam Viewer is now available in both native Intel and Apple Silicon (e.g., M1) builds. Due to the large size of the Dashcam Viewer program, a combined universal binary version is not available. Instead, simply download the appropriate version for the Mac's CPU architecture. Note that the Intel version will work on both Intel and Apple Silicon Macs (under Rosetta emulation).
- [Windows] Dashcam Viewer will now encode the GPS latitude/longitude coordinates of the vehicle into the EXIF section of the JPG image file when the Export JPG toolbar button is clicked. EXIF encoding of GPS latitude/longitude is available in both Plus and PRO versions of Dashcam Viewer.

Version 3.7.0 – Oct 16, 2021

New Features:

- Added ability to "Clean Up" all sub-windows. Selecting "Clean Up" from the Windows menu will gather the Dashboard, Graph, Map, and Control Center window around the Main Window. To control whether the Dashboard and Graph windows appear above or below the Main Window, simply move the Dashboard window anywhere above or below the Main Window before selecting "Clean Up". Similarly, place the Dashboard window to the left or right of the Main Window to make the Dashboard clean up to the left or right. The Control Center and Map windows will clean up to the left or right of the Main Window depending on where the Control Center window was before the Clean Up command was issued. Similarly, the

Control Center window will clean up to the top or bottom depending on where it was relative to the Main Window before the Clean Up command was issued.

Bug Fixes:

- Fixed bug in which Show Fullscreen mode would not work correctly.

Version 3.6.9 – Sept 20, 2021

New Camera Supports:

- Added support for iTracker MINI 0906 TS format.
- Added support for MINI 0906 TS format
- Added support for NextBase 522GW by working around extraneous data point issue.
- Reported compatible with GARMIN nuviCam LMTHD

New Features:

- The "hard reset" procedure will now clear the GPS data cache in addition to resetting all the settings.

Version 3.6.8 – June 25, 2021

New Camera Supports:

- Added support for BlackVue DR900X-2Ch
- Added support for Innovv K2 TS format
- Added support for Viofo A139 Dual

Bug Fixes:

- Fixed bug that would delete the wrong geotag under certain conditions
- Fixed bug that would not recognize 2nd channel of Viofo A139 when in parking mode

Version 3.6.7 – May 07, 2021

New Features:

- You can now select the directory where video screenshots are exported when the JPG/PNG toolbar button is clicked. Previously, all images were saved to the Desktop.
- Renamed the "Standard" version to be the "Plus" version
- Updated the URL linked to the Purchase button

Bug Fixes:

- Fixed front/rear pairing issue with Innovv K3

Version 3.6.6 – March 28, 2021

New Camera Supports:

- Added support for INNOVV K5 Dual (both MP4 and TS format)
- Added support for INNOVV K3 Dual (both MP4 and TS format)
- Added support for BlueSkySea B4K (TS format)
- Added support for VIOFO A119G V3 (TS format)

New Features:

- New toolbar buttons icons for better readability in both Dark Mode and Light Mode.

Bug Fixes:

- [Windows] Fixed bug which prevented Merge Videos from working under certain circumstances.
- [Windows] The day-of-week is no longer shown twice in date/time at the top of the video window.
- [Windows] On dual monitor systems, ancillary windows will retain their positions on the second monitor if the application is put in background and then brought to foreground. Previously, these windows would all reposition to the main monitor when brought to foreground.
- Fixed speed units issue with Alfawise LS02
- Fixed GPS data parsing issue with Blackvue DR750X-2CH
- Drag-and-drop of TS files is now supported

Version 3.6.5 – February 20, 2021

New Features:

- [Windows] Dashcam Viewer has a new look! New default Dark Mode theme for Window's users. Users can revert to the older theme if desired via the Preferences.



New Dark Theme on the left. Regular theme on right.

- Changed geoJSON exported filename to have .geojson extension instead of .json.
- Added ability to load .TS video files on computers that support this format.
- Minor GUI enhancements and tweaks.

Version 3.6.4 – January 24, 2021

New Features:

- Users can now choose the size of the PiP video frame when exporting video clips.
- Improved speed of GPS Data Cache system by caching additional video metadata. The GPS Data Cache system was first implemented in v3.6.3.

Bug Fixes:

- Improved compatibility with 70mai Dash Cam Pro videos in which the GPS unit did not achieve a fix at the beginning of the video, but did achieve a fix somewhere in the middle of the video.

Version 3.6.3 – January 4, 2021

New Features:

- Implemented new GPS Data Cache system, which speeds loading of video files by a factor of 100 or more the next time the files are loaded. The Free and Standard versions cache up to 1,000 files and the **PRO** version caches up to 10,000 files. Once the limit is reached, the oldest files in the cache will be deleted to make room for the newer ones being loaded. This feature applies to dashcams that embed their GPS data in the video file itself. By default this feature is enabled, but it can be disabled in the Advanced Preferences.

Bug Fixes:

- Improved the behavior of the Main Window so that it retains its size and position between program runs.
- Fixed minor bug in Trip gap time calculation if gap > 1 day.

Version 3.6.2 – January 1, 2021

New Camera Supports:

- Added support for 70mai Dash Cam Pro (preliminary)

New Features:

- [Mac] Improved font rendering in GUI panels
- [Mac] Improved support for Dark Mode
- [Mac] Fixed 'blank tab label' GUI issue when run under macOS Big Sur
- [Mac] macOS 10.14 or later required

Version 3.6.1 – November 29, 2020

New Camera Supports:

- Added support for Viofo A129 Plus Duo
- Added support for NextBase 622GW
- Added support for AKEEYO AKY-D9

Bug Fixes:

- Fixed bug in which double-clicking a trip would reveal video Markers on the Google Map, even if this option was unchecked.
- The mouse can now be in the main viewer area to perform a zoom using the mouse wheel. Previously, the mouse had to be on top of the main video for mouse wheel zoom to take effect.
- Improved zoom behavior for users of Apple MagicMouse or trackpads. Zooming

- will be less erratic now.
- [Windows] Dashcam Viewer will no longer remind you to install K-Lite Codec Pack or LAVFilters if they are already installed.

Version 3.6.0 – October 17, 2020

New Features:

- **New:** Data Browser. Use the Data Browser to examine and export your dashcam's GPS track data in a variety of formats. Data can be previewed, examined, copied to clipboard, and exported to files. Invoke the Data Browser using the DATA toolbar button or File menu. The available data formats are:
 - **CSV** : (comma-separated-value) which is compatible with Microsoft Excel
 - **GPX** : XML-based GPS data interchange format compatible with Garmin BaseCamp
 - **KML** : compatible with Google Earth
 - **GeoJSON** : used in GIS applications
- The Free version can export the current video's GPS data, the Standard version adds the option to export data for all enabled videos, the Pro version adds the option to export data for all videos in the current Trip and data all videos loaded.
- Added GeoJSON data export option. Altitude will be exported if available. Also, Geotags will be exported as Point features.
- Users can now export GPX with version 1.0 headers (compatible with Garmin BaseCamp) or version 1.1 headers.

New Camera Supports:

- Added support for Aukey DR02D latest firmware file-naming convention.

Bug Fixes:

- Fixed crash hang that could occur if user tried to resize the Export Video Clip, Shortcuts, About, Register window.
- Fixed bug in KML exporter.

Version 3.5.2 – August 23, 2020

General Improvements

- Implemented workaround to fix single-point GPS 'spikes' seen in data stream of some dashcam models. These are points that are out-of-scope from their neighbors. If a point is more than 5 km apart from its neighbors, then the point is discarded and replaced with an interpolated point.
- Improved error reporting of GPS data anomalies in Control Center window. Added more detail in error messages. If a wrench icon is displayed next to the video name, hover the mouse over the icon to reveal the errors and error codes encountered. Previously, only a single error message was displayed.
- Added support for parking mode videos from Viofo A129 Pro Duo with firmware "A129Pro: V2.0 Build: 20200710".
- [Windows] Dashcam Viewer is now distributed with the LGPL versions of ffmpeg and ffprobe. Previously the GPL version slipped into the build. Users should replace the LGPL versions with the GPL versions for best performance and features. Instructions for doing this are in the Users Manual.

Bug Fixes:

- Fixed crash if user has no videos loaded and clicks the "Enable All" button in the Trips list.
- When exporting a PiP clip, the ffmpeg LGPL warning message is now brought to front instead of hidden behind the Export Options window.

Version 3.5.1 – July 27, 2020

New Camera Supports:

- Hot fix to support rear channel of Viofo A129 Pro Duo with firmware A129Pro: V2.0 Build: 20200710.

Version 3.5.0 – July 25, 2020

New Features:

- **Added new Trip List feature.** When videos are first loaded, Dashcam Viewer bins them into "trips" and lists them in a new Control Center window tab. By default, a trip is defined as a contiguous set of 1 or more videos with no breaks of greater than 1 minute. Videos constituting a trip can be shown/hidden. Statistics are computed for each trip such as beginning date/time, the duration of the trip, the amount of gap time between trips, and the number of videos in a trip. Trip list items are color-coded based on trip length. PRO users can re-generate the trip list with a user-defined gap-time, rather than the 1-minute default.

New Camera Supports:

- Added support for BlueSkySea B1M 2CH with later version of firmware V20200327.

Bug Fixes:

- Improved handling of videos with incomplete GPS data records (date/time but no lat/lon).

Version 3.4.3 – July 5, 2020

New Camera Supports:

- Added support for BlueSkySea B1M 2CH
- Added support for Viofo A129 with firmware v2.3.
- Added support for DrivePro 230 with firmware v1.13.
- Reported compatible with Thinkware U1000

Bug Fixes:

- Merge Videos: Fixed minor bug in which the Save As dialog displayed the default movie name with a .MP4 extension when it should have displayed a .mov extension. All merged videos are .mov files.
- Minor performance improvements.

Version 3.4.2 – June 5, 2020

New Features:

- **Export To Image Sequence:** This feature will export individual frames of the video to a destination folder, beginning at the current video time. User options include the choice of image format (JPG, PNG, or BMP) and the frequency of image export. The highest frequency is one frame every 0.25 seconds. If *Export All Frames* is checked, all frames of the video, starting at the current time, will be exported to images. This can produce a LOT of images so be sure to use it wisely. *Export All Frames* is only available in the PRO version.

General Improvements:

- Holding down the Shift key when bringing up a window from the Windows menu will force the window to be drawn in the center of the screen. Useful in the case where a user can't find a window due to a busy desktop.

Bug Fixes:

- Improved window behavior in cases where user changes desktop screen resolution. Previously, it was possible for windows to be drawn off screen if user switched from higher resolution to lower resolution.
- Improved support for Transcend DrivePro 230 w/fw 1.12 (again).

Version 3.4.1 – April 1, 2020

General Improvements:

- Better synchronization between 2-channel videos, especially when the two channels differ in duration.
- Increased max user speed on speedometer to 300 km/h or mph.
- [*Windows*] Dashcam Viewer is now released as a 64-bit application for increased stability.

New Camera Supports:

- Added support for Guardian G1 Bodycam
- Added support for Alfawise LS02 (a.k.a. AZDOME BT07)
- Tested compatibility with NavMan MiVUE 680

Bug Fixes:

- Improved support for Transcend DrivePro 230 w/firmware v1.12

Version 3.4.0 – February 29, 2020

General Improvements:

- **Introduced Dashcam Viewer PRO for Mac and Windows.** The differences between the Free, Standard, and Pro versions are shown below. Registered users can upgrade to the Pro version for \$50 (US). Contact john@earthshinesw.com for details.

Feature	Free	Standard	PRO
Number of videos	2	1200	1200
Number of Geotags	2	10	100
Audio event detection	1 video	5 videos	100 videos
GoPro HERO support	30 secs	1 video	100 videos
OpenStreetMap display	No	No	Yes
Video merging	2 videos	No limit	No limit
Video clip export	5 secs	No limit	No limit
Annoying Startup Window	Yes	No	No
License	Personal	Personal	Commercial or Personal
Price	\$0	\$25 (US)	\$75 (US)

- Added new Audio Event Detection capability. Dashcam Viewer can now detect and jump-to key audio events in videos.
- [Windows] Added new option to control whether Map, Dashboard, Graph, and Control Center windows are hidden when DCV is put in bkgd.
- [Windows] Dashcam Viewer is now a 32-bit application for increased compatibility with users' systems.

Bug Fixes:

- [Windows] Fixed bug in street address lookup when creating a geotag. The request for street address was failing due to the OpenSSL DLLs not being present in the app directory.
- [Windows] Fixed bug in which Check for New Version didn't work (same issue as above).
- [Windows] Fixed the issue where the video window would occasionally become black until the video was un-paused.
- [Windows] Fixed bug in window export to JPG/PNG toolbar function that would produce black images.
- Fixed bug in Garmin 45 reader that resulted in incorrect lat/lon values.
- Fixed occasional bug in timeline when videos are enabled/disabled.
- Fixed issue in which GPS data in Transcend DrivePro 230 videos of 5-minutes would not be found. This is a temporary fix.
- Embedded subtitle formats: No longer require the videos to have uppercase .MOV or .MP4 extensions.

Version 3.3.3 – December 16, 2019

- Special release

Version 3.3.2 – December 7, 2019

New Camera Supports:

- Added support for Garmin Dashcam 35, 45, 55, 56 (possibly other Garmin models are compatible as well)

General Improvements:

- GPX exporter now produces GPX v1.1 namespace.
- GPX importer now supports <time> stamps with fractional seconds.
- Novatek-based dashcams: Experimental change to support video filepaths that have non-ascii characters.

Bug Fixes:

- Nextbase GW units such as 612GW, 533GW: improved speed of GPS data importation and removed errant map line artifacts.
- Prevent crash that could happen if GPX datarate is at too high a frequency.
- Fixed bugs in Crosstour CR900/CR750 loader that would prevent 2-channel videos from being recognized properly.
- For Crosstour CR900, added fuzzy-search for rear channel video, given a front-channel video. Also, fixed a recently introduced bug that would not read the GPS data from the Crosstour CR900 correctly. Note that newer CR900 firmwares are not supported since Crosstour started obfuscating their GPS data.

Version 3.3.1 – October 26, 2019

New Camera Supports:

- Added support for Viofo A129 Pro Duo

General Improvements:

- The default video mode is to fill screen rather than maintain aspect ratio. This can be changed in Prefs.

Version 3.3.0 – October 14, 2019

New Camera Supports:

- Added support for DOD LS475W dashcam
- Added support for CAMDII K2S dashcam
- Reported compatible with DOD LS460W
- Reported compatible with NextBase 612GW
- Reported compatible with Vantrue X4 UHD.

Bug Fixes:

- Fixed bug in speed calculation for WheelWitness HD Pro.
- Improved algorithm for pairing front/rear videos of INNOVV K2 w/0.61 firmware.
- Fixed bug that could lead to a crash if a geotag was created on a rear video but was invoked when DCV was playing the front video. Affected 2-channel dashcams only.
- Fixed bug that would invoke the Enter Geotag Title input dialog when a geotag file was imported or a geotag was deleted. This bug was introduced in v3.2.9.
- AutoVox X2 and JADO d860 only: I haven't been able to crack how the sign of the longitude is encoded in the data stream. So as a workaround for now, the longitude value is interpreted as positive every other time DCV is started and negative every other time it's started. So if your position is incorrect on the map, just quit and restart DCV and it will be ok. I will remove this kludge once the encoding scheme has been cracked.

Version 3.2.9 – August 31, 2019

New Camera Supports:

- Added support for Junsun 4K S590 dashcam
- Added support for JADO D860 dashcam

New Features:

- You can now immediately enter the name of a geotag when it is created, instead of clicking the settings icon in the tag list item.
- [Mac] Dashcam Viewer is now a code-signed application

Bug Fixes:

- Fixed bug in speed calculation for APEMAN C550.
- Fixed bug in which 10-minute videos from a Papago or Innovv K2 dashcam (with latest firmware) would not load GPS data.
- Added experimental change to support southern hemisphere in JADO and Autovox dashcams.

Version 3.2.8 – Aug 17, 2019

Special Release

New Features:

- DCV can now load up to 1200 2-channel or 1200 1-channel videos at a time. Previously the limits were 500 2-channel or 1000 1-channel videos.

Bug Fixes:

- [Windows] Fixed hang that could occur when loading more than ~400 videos at a time.
- Expanded fuzzy search for B videos, given an A video. Now search +/-6 seconds for time and +/- 4 for file number. Previously it was +/- 4 and +/- 2. This should improve pairing detection success.

Version 3.2.7 – July 21, 2019

New Camera Supports:

- Added support for WheelWitness HD Pro Plus
- Added support for Auto-Vox X1 (2CH) and Auto-Vox X2 (2CH)
- Added support for Viofo A129 parking mode

Bug Fixes:

- Fixed bug in reading GPS of Uniden iGo Cam 60

Version 3.2.6 – June 29, 2019

New Camera Supports:

- Added support for Transcend DrivePro 550
- Added support for E-PRANCE Car DVR Recorder 3H2F GS6000 Ambarella A7
- Added support for PAPAGO GS34G
- Added support for INNOVV K2, firmware variant 2

New Features:

- Tapping the 'c' key will copy the current lat,lon position into the Clipboard so it can be pasted into other programs.

Bug Fixes:

- Fixed bug reading GPS data from DrivePro 220 and DrivePro 230 with certain firmware versions.

Version 3.2.5 – June 3, 2019

New Features:

- New geotags are now titles with the street address of the closest to the current latitude/longitude. Previously, new geotags were titled with “Untitled Event”. This new behavior can be turned off in the Advanced Preferences.
- Added human-readable weather summary for the time and place of the drive. For example, “partly cloudy” or “clear”.
- Switched to DarkSky.net as the source for historical weather information.
- Added a new button in the Map window that will open your web browser to a Google Map of the current vehicle location.
- Improved the layout of widgets in the Map window.
- [Windows] The Dashcam Viewer GUI should now look better on 4K monitors.
- Added Arabic translation (thanks, Iculator Z.)
- Added Polish translation (thanks, Widmo W.)

Bug Fixes:

- Fixed error message that would occur if the Get Weather button was clicked. The error was due to fact the weather service used was no longer in business.

Version 3.2.4 – May 12, 2019

New Camera Supports:

- Added support for APEMAN C550, variation #2
- Added support for V-SYS M6 triggered videos (g-sensor and manual triggered)
- Added support for g-sensor data in AZDOME GS63H and ROVE R2 4K.

Bug Fixes:

- Fixed bug in which space character would be ignored in Geotag title input dialog.
- Fixed minor bug in which the Return key would be ignored when pressed in the Geotag title window to accept&dismiss the GUI.
- [Windows] Fixed issue with 2-channel dashcams that store their front and rear videos in different directories on the SD card. In some cases, the rear videos were not found.
- Improved error message when user enters wrong platform's registration key.

Version 3.2.3 – April 22, 2019

New Camera Supports:

- Added support for Papago GoSafe S780 2CH
- Added support for Junsun 4K 2CH
- Added support for ROAV C2 Pro
- Added 2Ch support for V-SYS P6FL and V-SYS M6

General Improvements:

- Added warning message if video media can not be played by the computer's video subsystem. Previously no warning would be issued and users would see a black screen.

Version 3.2.2 – March 18, 2019

New Camera Supports:

- Added support for Crosstour CR750 2CH
- Added support for RoadHawk DC-2
- Reported compatibility with Kenwood DRV-320
- Reported compatibility with Whistler D28RS

General Improvements:

- Some dashcams occasionally produce GPS data out of chronological order or have duplicate data points. A workaround was applied to better handle these situations. Even with the workaround, the vehicle may not appear mapped at the exact video location. A wrench icon will appear in the Movies and Geotags window if this situation is detected.
- An error message is displayed if the user tries to load only 2nd channel videos. (In order to view 2nd channel videos, the corresponding 1st channel video must be loaded. The 2nd channel will then be loaded automatically.) Previously, Dashcam Viewer would not report an error in this case and basically do nothing.

Bug Fixes:

- Improved behavior when the Ignore GPS option is selected.

Version 3.2.1 – March 10, 2019

Special release

Version 3.2.0 – March 3, 2019

Special release

Version 3.1.9 – February 11, 2019

New Camera Supports:

- Added support for Gator GHDVR410
- Compatible with Rove R2-4K
- Compatible with Aukey DR02
- Compatible with Junsun 4K Ultra HD WiFi Car Dash Cam
- Reported compatibility with Thinkware F200 2CH

New Features:

- Alt-Return, F11, and Cmd-F (Mac) or Ctrl-F (Win) will all toggle fullscreen mode
- The spacebar-to-pause/resume feature now works even if the main window is not in the forefront.

General Improvements:

- The Time Preferences have been simplified. The *Auto-Fix Time Offset* button, the *Always Auto-Fix Time Offset* button, and the *Time Offset* field have all been removed. These have been replaced with a *Time Bias* field. The Time Bias allows you to fine-tune the synchronization of the video with the vehicle's map position. In most cases this can be left at '0' seconds.
- The ability to save settings on a per-movie basis was removed. This legacy feature is rarely necessary and could cause data sync issues if not properly used. Legacy *_settings.dcv files will now be ignored.

Bug Fixes:

- Fixed issue introduced in v3.1.8 where DCV would not process GPS data of certain dashcam models.
- Fixed crash that could occur if all graph y values were identical.

Version 3.1.8 – January 13, 2019

New Camera Supports:

- Added support for Azdome GS63H
- Added support for DOD RC500S 2CH

New Features:

- Added Fullscreen mode. Use Cmd-F (Ctrl-F on Windows) to toggle between Fullscreen and regular modes.
- Implemented an additional slow motion speed (1/32x speed)
- Graph window background is now black instead of gray

Version 3.1.7 – December 15, 2018

New Camera Supports:

- Added support for Akaso Dash Cam V1
- Compatible with DOD LS470W

Bug Fixes:

- Fixed speed units issue with Polaroid G55H dashcam
- Data import improvements for NextBase 412G and 512GW

Version 3.1.6 – December 2, 2018

New Camera Supports:

- Added support for Uniden iGO Cam 60

New Features:

- Improved data graph draw speeds
- Improved responsiveness of Dashcam Viewer when clicking in the map or in a graph to jump to a point in a video.

Bug Fixes:

- Added support for 10-minute movie clips with the Polaroid G-55H

Version 3.1.5 - November 10, 2018

New Camera Supports:

- Added compatibility with "Wileye DV-1 Dual Cam Recorder"
- Compatible with "Toguard Full HD WI-FI Car Dash Camera"
- Added support for second variant of the Crosstour CR900 dual channel dashcam that had a different file structure.

Bug Fixes:

- Fixed bug in which Front/Rear movies would not swap correctly when the toolbar button was clicked.
- Improvements to Reset Window Positions menu function.
- Fixed bug in which default settings file would be created in the wrong place and therefore never used properly.
- Fixed bug in which geotags could have incorrect timestamps.

Version 3.1.4 - October 27, 2018

- Special release

Version 3.1.3 - October 1, 2018

New Camera Supports:

- Added support Crosstour CR900 dual-channel dashcam

New Features:

- Made "fuzzy logic" B movie search for StreetGuardian SG9663DC 'B' movies fuzzier by searching +/- 4 seconds for the matching filename instead of +/- 2 seconds.

Version 3.1.2 - August 29, 2018

New Camera Supports:

- Added support for a second variant INNOVV K2 movie file-naming convention.
- Added support for DrivePro230.

Version 3.1.1 - August 24, 2018

Special release

Version 3.1.0 – August 11, 2018

New Features:

- The speedometer has been enhanced with better graphics and user-configurable maximum speed. Double-click the speedometer face to edit max speed, or single-click to change speed units.
- Added more playback rates: 1/8x and 1/16x
- Extended fuzzy logic B movie search beyond the SG9663DC to include Rexing V1LG, Rexing V1P, Transcend DP520. This improves A/B movie matching for these dual-channel dashcams.

Bug Fixes:

- Improvements to initial window positions and window sizes when the program is first run.
- Fixed bug in which compass could point in wrong direction if speed units changed.
- Fixed potential bug in Distance readouts

New Camera Supports:

- Added compatibility with Rexing V1P
- Added compatibility with SuperEye RJ0090
- Compatible with Rexing V1LG
- Compatible with INNOVV K2 Dual Channel

Version 3.0.3 – June 10, 2018

New Features:

- Users now have the option to exclude audio when merging video clips.
- When exporting movie clips or merging videos, users can now accelerate or decelerate the playback rate from 0.125x speed to 8x speed. Slow-motion helps examine short events in a movie, such as the moment leading up to a collision. Fast-motion merge-export condenses a long journey into a short movie.
- Added fuzzy-logic to improve pairing of 2nd channel movie files to the 1st channel movie files for the StreetGuardian SG9663DC dashcam.

Bug Fixes:

- Fixed bug in 2-channel mode in which the durations of the movies would be incorrect.

Version 3.0.2 – June 4, 2018

New Features:

- Users now have the option to exclude audio from exported movie clips.

- The *Reset Window Positions* feature now takes into account the space occupied by the Dock (Mac) or Taskbar (Windows).

Version 3.0.1 – June 3, 2018

New Features:

- On the first run of Dashcam Viewer, all the windows will be logically arranged on the screen. Previously the windows were laid out in a somewhat haphazard configuration that was annoying.
- To restore the default windows positions and sizes, a new "Reset Window Positions" function was added. The old Stack Windows function was removed.
- Holding down the Shift Key upon startup will present the user with the option to delete all settings, including windows positions and registration code.

Bug Fixes:

- Fixed problem with map not displaying for users behind a proxy server.
- Improvements to Registration process.

Version 3.0.0 – May 20, 2018

Windows-specific New Features:

- PiP is now available on Windows version.
- Video playback performance is improved. Note: you must now install a codec pack to take advantage of video playback. DCV3 will direct you to the K-lite codec pack URL when you run it for the first time.
- The occasional black screen issue is largely improved.

Mac-specific New Features:

- Video playback is smoother, especially in accelerated modes
- Max accelerated playback speed increased from 2x to 5x.
- Vehicle position and route now display correctly in Google Maps option.
- Now plays movies from Thinkware F750, F770 dashcams
- Requires macOS 10.10 or higher

New Camera Supports:

- Added support for Vantrue N2 Pro dashcam.

Minor Enhancements:

- Fixed issue where using the mouse to zoom in the video would not work even if the mouse was in the movie frame window.
- DCV3 no longer shows the annoying 'A movie must be playing..' error message.
- Minor bug fixes to Movies and Geotags Window, Dashboard display.
- The Export Movie window will now disappear after a movie clip is exported.
- In Movies and Geotags Window, the currently-playing movie is highlighted in a brighter color.
- Improved filtering of bad points in Viofo A119 series.

- Fixed bug in processing GPS data for SONY AS100V.
- Increased zoom rate.

Other Items:

- This is a free upgrade for version 1 and 2 users.
- macOS 10.10 is now the minimum system requirement.
- On the Mac version, you may occasionally notice the video will appear zoomed-in when first loaded. If this happens, double-click in the movie window to properly size the movie for the window frame. This seems to be a glitch in the video backend framework.
- DJI's 'SRT' files are no longer processed in DCV3. This capability is being moved to a new product called DroneViewer. DroneViewer will be a fork of DCV3 and evolve to have UAV-specific features.
- DCV3 is 64-bit. No 32-bit version available.

Version 2.7.8 – February 18, 2018

New Camera Supports:

- Added support for Thinkware F800Pro Dual-Channel dash cam

Bug Fixes:

- [*Mac version*] The Reset View button (or double-clicking in the movie) will now also reposition and resize the 2nd channel PiP window to the top left corner of the main window.
- [*Mac version*] Default map type is now MAPQUEST since Google changed something with their Maps service that prevents Dashcam Viewer from rendering any graphic elements onto the map (no placemarks, routes, etc.).

Version 2.7.7 – February 4, 2018

New Features:

- Added “real-time” Line-Of-Sight (LOS) and Route distance computations to the Geotags list items. This LOS distance provides current LOS distance between the geotag point and the current vehicle location (including altitude differences if altitude data is available). The Route computation displays the distance along the route between the geotag position and the current vehicle location.

Bug Fixes:

- Fixed bug that would ignore clicks in the Altitude plot.

Version 2.7.6 – January 1, 2018

New Camera Supports:

- Added support for Anker ROAV Dash Cam C1 Pro
- Added support for KDLinks R100 (note: this dashcam produces no GPS data. Thanks Brian M.)

- Added support for DJI drones in which the GPS data is embedded into movie file (in SRT format).

Bug Fixes:

- Fixed bug in which speedometer and compass could show wrong speed and direction if the Dashboard window was closed and reopened.
- [Mac] Fixed bug which would prevent Dashcam Viewer from running on pre-10.11 operating systems.

Version 2.7.5 – December 3, 2017

Special release

Version 2.7.4 – December 2, 2017

New Features:

- Added initial support for timelapse mode of Viofo A119. Still have more to do, e.g., fix click-to-go in Map and click-in-Graph
- The Graph window can now shrink to same height as Dashboard window.
- SRT Files: Improved time accuracy of imported data

New Camera Supports:

- Added support for Blackvue DR750S-1CH (thanks, Brian L.)
- Added support for Apeman C550
- Added support for SeeZeus GT680W
- DJI SRT: Added initial support for DJI Matrice SRT file format. Note: the SRT file format has many variants and is a moving target which makes it difficult to fully support.

Bug Fixes:

- [Mac version] Fixed bug in which directory selections for file import/export would not always stick. This was introduced in v2.7.0.

Version 2.7.3 – October 7, 2017

New Features:

- Added a new Preference to control whether ancillary 'Windows Stay On Top' of the Main Window. Setting this checkbox off will revert Dashcam Viewer to the way windows were managed in versions prior to v2.7.0. This mode may be preferred for Surface tablet PCs. Please quit and restart Dashcam Viewer after making a change to this setting.
- The Shortcuts, Register, About, and New Version windows will now appear above the other ancillary windows when they are displayed. (Thanks, Ian D., for the tip)
- [Mac version, PiP] The Picture-in-Picture window will now remember its size and position from run to run. Clicking the Reset button will no longer move and resize the PiP window to the top left.
- The movie resolution is now displayed in the info area of the Main Window.

Bug Fixes:

- Miscellaneous bug fixes

Version 2.7.2 – September 16, 2017

New Features:

- Users can now compensate for dash cams that do not store their GPS data in UTC–relative time. Entering the correct UTC offset in the Preferences–>Advanced tab will apply the correction such that UTC timestamps will no longer be displayed in Local time when exporting to CSV or GPX files. This will not affect the timestamp at the top of the movie window but will affect the output of CSV, GPX, and KML files. In addition, you can now specify the Local Time offset from UTC when exporting data to CSV file.
- Made Preferences window modal so multiple instances will not clutter the screen.
- Improved load speed for NextBase 412G
- Added more verbose explanations of GPS data processing errors (these explanations appear when the mouse is hovered over the wrench symbol in the Movies and Geotags window).
- Added Chinese translation (thanks, Ming Z!)
- Improved to German translation

New Camera Supports:

- Added GPS compatibility with Viofo G1W–S.

Version 2.7.1 – August 20, 2017

New Features:

- You can now orient the Dashboard window vertically or horizontally to optimize your window configuration.
- Increased max value in Distance graph from 200 to 400 distance units.

New Camera Supports:

- Added support for WASPCam POD 9401
- Compatible with Blaupunkt_BP3.0_FHD (Mac Only)

Bug Fixes:

- Fixed bug in which the window positions would not be remembered if the application was brought to the background and then back to the foreground.
- Fixed bug in which .gpx or .dat files would be ignored when loading movie files of the same base name. For example, if a movie named 2017_08_20.MP4 were collocated with a corresponding 2017_08_20.GPX file, the GPX file would have been ignored. Now it will be loaded and paired with the movie. This was a recently introduced bug.

Version 2.7.0 – July 30, 2017

New Features:

- The Map, Dashboard, Graph, and Control Center windows now float above the

Main movie window. This allows you to maximize the size of Main window and overlay the ancillary windows on top. Previously, the ancillary windows would be hidden beneath the Main window. This change allows for more dynamic and efficient Dashcam Viewer window configurations.

- When Dashcam Viewer is put to the background, the ancillary windows will hide. They will come back when DV is brought to the foreground.
- The Map window can now be shrunk horizontally to a very small size.
- The Dashboard window can be shrunk horizontally to show only the speedometer and not the other widgets.

Version 2.6.9 – July 25, 2017

- Not publically released

Version 2.6.8 – July 21, 2017

New Features:

- You can now choose between PNG and JPG format when exporting the current movie frame to an image file. JPG format is 7x smaller than PNG, but slightly lossy.
- [Mac] When exporting a movie frame to JPG format, the GPS coordinates are embedded in the file's EXIF information block.

New Camera Supports:

- Added support for Polaroid PD-G55H
- Added support for a new variation of the MINI 0805 (embedded GPS data)

Bug Fixes:

- Fixed a bug that would prevent the unregistered version of Dashcam Viewer from merging two videos.

Version 2.6.7 – July 1, 2017

New Features:

- You can now change color and size of vehicle map marker, or use the default marker icon.
- DJI drone SRT files: speed values are now smoothed. While it's great that DJI conveniently logs the drone's flight data into an SRT file, the speed of the drone is not written to the file and the latitude and longitude values are not stored in high precision. Dashcam Viewer uses the time-stamped lat/lon values to estimate the speed. The lack of precision means the speed varies somewhat wildly. This modification smooths out some of the unwanted variations.
- Export GPX: Improved compatibility of GPX files with other programs such as Garmin BaseCamp.
- Updated user's manual.

Bug Fixes:

- Fixed recently added bug in MINI 0805/0806S loader that would not show all the data points.

- Fixed bug in which Map Type was not saved between runs of the program.
- [Windows] Fixed bug when loading movie files >2GB from Viofo A119 dashcams
- Added warning about commas or quotes in movie file paths when merging movies.

Version 2.6.6 – June 17, 2017

New Features:

- Replaced Bing maps with Mapquest maps due to upcoming deprecation of Bing Maps API v7.
- "Click-To-Go" is now supported in Windows. With this feature enabled, you can click on your Route line in the Map and the movie will jump to that point.
- You can now switch between Google and Mapquest maps without having to reload movie files to see your route.
- Improved load speed of RAC210 and Cobra CDR855BT movie files.
- Improved load speed of Falcon Zero F170 movie files
- Improved accuracy of speed in Falcon Zero F170 movies
- Improved auto-detection of Vantrue N2 dashcam GPS data

New Camera Supports:

- Added support for Mini 0906 Dual Channel (thanks, Rayman)
- Added support for Mini 0806S (thanks, Ken S.)

Bug Fixes:

- Fixed bug in RAC210 GPS data scanner which could lead to data not being read for large movie files.
- Improved Click-To-Go behavior with Google Maps. Previously CTG would not work if you clicked directly on the Route line. This has been fixed.

Version 2.6.5 – June 3, 2017

New Features:

- Merge Movies feature now respects the active movies in the Control Window. Non-active movies and their GPS data will not be exported (i.e., skipped).
- After a Merge Movies, the Merge Windows now disappears.
- Default directory for Merged files, CSV, GPX, and KML exports is now the Desktop instead of the Dashcam Viewer folder.
- Improved load speed of Novatek-based dashcams under certain conditions.
- New left/right arrow icons in Dashboard Window.
- Vehicle placemark icon is now a dot instead of a pin.

New Camera Supports:

- Added support for Mio MiVue 698 Dual Channel (Mac only)
- Added support for NextBase 512G (Mac and Windows, thanks, Brian K.!)
- Added support for NextBase 302G (Windows only)

Bug Fixes:

- Movie start markers are now at their proper locations on the map.

- Fixed bug that could cause DV to not find the 2nd channel movie for Koonlung K1S and Innov K1 dashcams.

Version 2.6.4 – May 19, 2017

New Features:

- [*Windows*] Dual-channel dashcam support added to the Windows version! Select between front or rear movies at the toggle of a toolbar button. Alternatively, use the 'r' key to swap movies.
- [*Mac*] Dual-channel dashcam users can now switch between four movie modes: front movie, rear movie, front/rear (PiP), and rear/front (PiP).
- [*Windows/Mac*] Export MOVie enhancements: Dual-channel dashcam users can now chose to Export Movie clips in front-only, rear-only, front/rear, or rear/front PiP movie modes.
- [*Mac*] Added support for Mini 0801S (thanks Phil W.)
- Added support for [Transcend DrivePro 220](#) with firmware 2.0 (thanks Stephen C.)

Bug Fixes:

- [*Windows*] Improved behavior of DV when clicking in a graph to jump to a new movie position. Now two clicks are not required.

Version 2.6.3 – May 5, 2017

Bug Fixes:

- Fixed bug in A119 GPS decoder which would fail to process GPS data in some circumstances. Also, improved GPS decoder performance speed.

Version 2.6.2 – April 29, 2017

New Features:

- Added user-configurable 'instant replay' button to quickly jump back in time.
- Added the option to prevent loading of GPS data. This allows you to load and play many movies quickly.
- [*Windows*] Added reset buttons for brightness and contrast (thanks to Rick R. for the suggestion)
- [StreetGuardian SG9665GC](#), [BlackBox B40](#) movies now load 5 times faster (thanks to Rick R. and Jon S. for their help).
- [*Mac*] Added Picture-in-Picture support for [StreetGuardian SG9663DC](#)

Version 2.6.1 – April 9, 2017

New Features:

- Users can now ignore (skip) the first few seconds of each movie to support dashcams whose consecutive movies overlap. The skip amount is set in the Preferences window. ToDo: apply the skip value to the "merge videos" feature.
- Improved accuracy of frame-by-frame mode for movies with non-30 fps frame rates (thanks, Dean, for pointing this out).

- Added ability to swap the front and rear movies in the main display by tapping the 'r' key. (thanks, Mick T., for the suggestion). ToDo: add toolbar button to initiate the swap.
- [Mac version] Added support for [Vantrue N2](#) dual-channel dashcam (special thanks to Ken C.)
- Added altitude for [iON Adventure Cam](#) and [iON DashCam WiFi](#)
- Added support for NanoQ903, latest firmware (Special thanks Stefan G.)
- Movie framerate is now displayed in the Main Window movie info box

Bug Fixes:

- Fixed bug that would fail to load GPS data if a .txt file was in the movie directory.

Version 2.6.0 – March 25, 2017

- Custom build for client

Version 2.5.9 – March 15, 2017

New Features:

- You now have the option to export individual GPX files for each movie, as well as a single large GPX file for the entire route.
- Improved the Export MOVie Clip feature to support arbitrary entry of start time, stop time, and duration.
- Added support for embedded GPS data format of MINI 0826 dashcam.
- Verified compatibility with the [Kaisser Baas R20](#) (Mac version only)
- Improved the default window layout when DV is first run. Note that that the recommended screen resolution is 1600x1200 or larger.

Bug Fixes:

- [Windows version] Fixed clipping issue of date/time stamp in the Main Window.
- [Windows version] Fixed text clipping issue in Movies and Geotags window.
- Improved default window positions when running on low-res monitors. Previously it was possible that windows could appear offscreen (this happened on Windows only)
- Fixed Map display error where a message similar to "Oops. This page didn't load correctly" appeared in the window.
- [Mac version] Added information on how to play a 2nd channel movie by itself. This could have led to a crash previously.

Version 2.5.8 – February 17, 2017

New Features:

- Enhanced the "Merge Videos" feature of Dashcam Viewer. After merging videos a single GPX file is created (along with the merged video). This file contains the waypoints for all the movies that were merged. You can load the merged movie file into Dashcam Viewer and DV will detect and load the GPX file to show the combined route.
- Added support for the latest GPS data encoding used by the [iON Adventure Cam](#). This is the third scheme encountered for this action cam based on user test

movies submitted in the past two years. Special thanks to Brian K. for his assistance with this action cam.

- Improved parser for NMEA files to be more flexible with date formats.

Bug Fixes:

- Fixed bug in dashcam model auto-detect code. The bug could prevent detection of dashcam model and thus prevent loading of data in some cases.
- [Windows version] Fixed oversight in which Ctrl-4 was used for two shortcuts.

Version 2.5.7 – January 21, 2017

New Features:

- RAC210 dashcam is now supported
- Improved load time for some dashcams
- Improved handling of bad GPS data in files

Bug Fixes:

- Fixed bug that would cause the Merge Movies and Export Movie Clip features to produce bad output files for some movie file types.

Version 2.5.6 – January 2, 2017

New Features:

- Added support for [SONY AS100V](#) Action Cam
- Improved NMEA parser to accept fractional seconds
- Various code optimizations

Version 2.5.5 – December 26, 2016

- Special release

Version 2.5.4 – December 23, 2016

New Feature:

- Added support for Roadhawk HD and Roadhawk HD-2 dashcams. Special thanks to Robert M. for his help in this effort.

Version 2.5.3 – December 16, 2016

Bug Fixes:

- Fixed potential bug in Click-To-go and Graph Clicking that would jump the clock to the wrong time. This only happened if Always Auto Fix Time Offset was unchecked.
- Added workaround for firmware v1.1 of A119 dashcam. If the day-of-month is missing, DV will substitute the file modification day-of-month. This will allow you to at least see the GPS data whereas previously this would be an error.

- Improvements to GPX importer. DV will now check for GPX files of the same name as the movie filename and load them. DV will compute speed if speed is not present in the GPX file.
- Fixed bug that would fail to save audio when exporting a movie clip.
- Improvements to Hungarian translation.
- Improvements to Geotag exporting.
- [Mac] Improvements to toolbar size/icons

Version 2.5.2 – November 26, 2016

New Features:

- Added Italian language translation. Special thanks to John Westman for providing the translation.
- Added Hungarian language translation. Special thanks to Rebi Rebell for providing the translation.

Bug Fixes:

- Fixed minor bug that would report max speed of -621mph in movies that had no GPS data.

Version 2.5.1 – November 19, 2016

New Features:

- Geotags are now included in the KML export feature.

Bug Fixes:

- Improved post-processing of movies with bad GPS timestamps.
- Improved handling of Viofo A119 dashcam files
- Improved language translations (courtesy of Google Translate)
- Removed debugging output

Version 2.5.0 – November 13, 2016

New Features:

- **Geotagging!** Users can now drop markers anywhere along their route. The markers show up on the Map and in a List view. The time, date, speed, latitude, longitude, movie name, and movie time are also displayed. Double-clicking a geotags in the Geotags List will jump to that point in the route. The geotags can be exported to a text file, and imported back in. The free version supports the creation of two geotags. The paid version supports up to ten geotags.
- **New Movies List.** All loaded movies are shown in the Movies List. Movies that are uninteresting can be toggled off so they no longer appear in the movie sequence and their data is no longer displayed in the Map or Graphs. Users can double-click a Movie in the List to immediately jump to the beginning of the video. Meta information about each movie is displayed in the list item.
- Added support for Viofo A119, firmware 2.0.

Version 2.2.2 – October 2, 2016

New Features:

- Added support for Garmin DC20 (Windows version only)

Bug Fixes:

- Fixed bug which could hang Dashcam Viewer when loading Thinkware F750/F770 files.

Version 2.2.1 – September 25, 2016 (limited release)

New Features:

- Added new Stack Windows option (under the Windows menu) to bring all the windows back into view.
- Latitude and longitude are now expressed to 6 digits past the decimal point.

Bug Fixes:

- [Windows] Data Window: Fixed the clipping of the Calendar widget and fixed alignment of the three Data Window sections (speedometer, compass, data).
- Fixed bug in which "V" records of an NMEA GPS data set were ignored. Even though these V points don't have lat/lon they have timing and are therefore needed to complete the data set.
- Some dashcams run out of GPS data before the end of the movie. Now DV will hold the last valid point instead of invalidating the map.
- Fixed memory bugs that may have led to random crashes.
- Improved Russian translation. Thanks, Andrew Z.!

Version 2.2.0 – September 4, 2016

New Features:

- You can now click in the Graph to jump to points in the movie sequence. This feature can be turned off by a checkbox in the Preferences. [Thanks to user "Manuel" for the suggestion]

Bug Fixes:

- Fixed bug that could change the currently selected graph tab if the user switches movies.
- Implemented workaround for bug in F770 GPS data stream in which extraneous data points are present at the end of the stream.
- Reduced unnecessary white space surrounding the Graph windows.

Version 2.1.9 – August 20, 2016

Bug Fixes:

- [Windows version] DDPai M6+: Fixed bug that would prevent some GPS files from loading. These files had a "_D" at the end of their name. Note that the MP4 movies recorded by the DDPai M6+ are not playable in Dashcam Viewer for the Mac or in Apple's QuickTime Player 7.

Version 2.1.8 – August 14, 2016

New Features:

- [Windows version] Added support for [DDPai M6+](#) dashcam
- [Mac] Internal improvements to improve the efficiency of handling clicks in the movie scrub bar when animation is paused.

Version 2.1.7 – July 31, 2016

New Features:

- [*Mac version*] The graph and map will now update after clicking on the seek slider widget when the video is paused. Previously, the update would not occur until video playback was resumed.
- Exported PNG captures are now saved to the Desktop using the following filename convention:
movieName_lat,lon@movieTime.png
Thus the latitude and longitude of the vehicle is recorded in the filename of the PNG.
- After registering, your name will appear under the Help menu as "Registered to: <Your Name>"
- Added compatibility with nanoQ 0903 dashcam

Bug Fixes:

- Improved GPS data parser for MINI 080x dashcams

Version 2.1.6 – July 18, 2016

New Features:

- Added progress dialog when exporting movie fragment or merging movies. Merging of movies or exporting clips from two-channel camera can be very time-consuming.

Bug Fixes:

- [Windows version] The graph and map will now update after clicking on the seek slider widget when the video is paused. Previously, the update would not occur until video playback was resumed.
- Fixed bug that would prevent audio from being transferred when exporting a movie clip in some cases.

Version 2.1.5 – July 3, 2016

New Features:

- Windows users can now merge multiple movies into one movie using the Merge tool. To use the tool, click the toolbar icon with the right-hand arrow inside of a filmstrip. This feature had previously only been available in the Mac version.
- [*Mac version*] When exporting a movie fragment from a dual-channel camera, Dashcam Viewer will produce a Picture-In-Picture movie with the rear camera view in the top left corner.

Version 2.1.4 – June 25, 2016

New Features:

- [Windows version] Greatly improved accelerated playback modes. Playback is now much smoother at higher acceleration modes. Also, the maximum acceleration mode on the Windows version has been raised from 2x to 5x.
- Added support for MiVue 658 (Mac version)
- Added support for MiVue 580 (Mac version)
- Improved handling of GPS data when GPS lock does not occur until midway into the movie. This was an issue with Ambarella A7 dashcam and perhaps others.

Bug Fixes:

- Fixed bug in reading Cobra CDR855BT speed parameter.
- Zetronix Build: Fixed bug that could lead to infinite loop when loading data.

Version 2.1.3 – June 5, 2016

New Features:

- Added new option to auto-load a movie directory upon startup. See Preferences to enable this option.
- Added GPS support for Cobra CDR855BT dashcam
- Added support for GRDIAN Defendr dashcam
- Added support for Polaroid E272S dashcam

Bug Fixes:

- Internal improvements in dealing with out-of-range GPS data.

Version 2.1.2 – May 21, 2016

New Features:

- [Windows] Users can now click anywhere on the movie scrubber bar to jump to that position in the movie. Formerly, users would have to click and drag the scrub handle to jump to a movie position. Thanks to dashcamtalk.com user kandrey89 for the suggestion.
- Added "N Up" checkbox in the Map Window. This button controls whether the map is oriented in the North Up direction (the default) or is oriented dynamically based on the vehicle's direction. Note that Bing and Google Maps APIs only allow their maps to be rotated if there is high-resolution 3D imagery available for that region. Regular "road" maps and "satellite" maps don't support rotation. Zoom-in deep to see if "3D imagery" mode appears for your region. Special thanks to user Eric Sanders for the suggestion.

Bug Fixes:

- Fixed bug in which graph line colors would not show if user had *Always Auto Fix Timezone* checkbox unchecked.

- [Windows] Improved behavior of Dashcam Viewer when the master scrubber is moved.

Version 2.1.1 – May 14, 2016

New Feature:

- Added French and Dutch language selections for the GUI.

Bug Fix:

- Fixed bug which could result in the incorrect language selection for some parts of the GUI.

Version 2.1.0 – May 8, 2016

New Feature:

- Added user-selectable choice of English, German, Spanish, Russian, Turkish, and Vietnamese language for the GUI.
- Removed 12/24 hour option

Bug Fix:

- Improved detection of Novatek GPS data.

Version 2.0.5 – Apr 16, 2016

New Feature:

- Graph traces are now color-coded based on vehicle speed. The same scale is used for both the map and the graphs. The speed scale can be adjusted in the Preferences.

Bug Fix:

- Fixed bug that could occur when playing movies with timestamps before 13 May 2014

Version 2.0.4 – Mar 28, 2016

Bug Fixes:

- Implemented workaround for null times in the GPS data. This can happen if the dashcam did not achieve a GPS fix before the vehicle starting moving, or if the GPS signal was obstructed.
- Fixed rare bug that could crash Dashcam Viewer if the Distance graph is chosen.
- Custom builds: When user selects User Manual from the Help menu, they will no longer receive a 404 error if there is no matching version of the User Manual for their build version. Instead, the user will see the most recent Users Manual available.
- Regular build: Fixed bug with importing of Zetronix dashcam GPS data

Version 2.0.3 – Mar 20, 2016

New Features:

- Added support for Transcend DrivePro 520. Dual-channel picture-in-picture is supported with the Mac OS X version of Dashcam Viewer.

Version 2.0.2 – Mar 12, 2016

New Features:

- Upon start-up the Map view jumps to its last location, rather than 1 Infinite Loop (Apple headquarters).

Version 2.0.1 – Mar 6, 2016

New Features:

- Map style (satellite, terrain, roadmap, etc.) is now preserved between runs for Google map.
- Added support for NavGear Super-HD-Dashcam MDV-3300
- Added support for Maisi E720 dashcam
- Compatible with Novatek A118C

Bug Fixes:

- Fixed bug with map initially coming up in Roadmap mode instead of Hybrid mode

Version 2.0.0 – Feb 15, 2016

New Features:

- Users can now drag and drop a movie folder onto the gray area of the Player Window to load movies in that folder.
- Simplified Registration window.
- New and improved toolbar icons
- The window movement sync/unsync status is now indicated with a "lock" icon in the toolbar

Bug Fixes:

- [Mac] Fixed incompatibility with Mac OS X 10.8 which could lead to a crash

Version 1.9.4 – Feb 3, 2016

New Features:

- [Mac] Users can now merge multiple movies into a single long movie. See the new toolbar button with the sideways arrow. Note that the free version is limited to merging a maximum of two movies. Windows' implementation is ongoing. (Thanks to Superbaz for the suggestion)

- The *JumpTo* pop-up menu now displays the movie name followed by the day of week, date and start time. This makes it easy to choose a movie based on a particular day. (Thanks to Robert Guezen for the suggestion).
- When the Dashcam Viewer application is brought to the foreground, all of its windows are brought to the foreground too. Previously, only the windows that was clicked on was brought to the foreground. This keeps Dashcam Viewer pieces together!
- The Export Movie button has been promoted to a full-fledged toolbar button.
- [Mac] Added support for ION Dashcam WiFi (Thanks to Ian M. for sample files).

Version 1.9.3 – Jan 15, 2016

New Features:

- Added ability to export tracks as Google Earth KML files. The tracks are time tagged so you can scroll through your route using Google Earth's time.

Bug Fixes:

- Current movie now pauses when user clicks Export Movie button.

Version 1.9.2 – Jan 3, 2016

New Features:

- Player window now has black background for improved readability of date/time/speed
- When creating a PNG image, a message will appear saying the image is stored on the Desktop.

Bug Fixes:

- [Mac OS X 10.10] Fixed bug that prevented loading of movie files when users dragged movies from the Finder into Dashcam Viewer's player window.

Version 1.9.1 – Dec 20, 2015

Bug Fixes:

- [Mac] Fixed bug in Macs with Retina displays where the PNG capture feature would only capture ¼ of the movie window.
- Fixed progress bar scaling when loading RAC dashcam GPS data.
- [Windows] Improved performance on dual-channel dashcams. Note that dual-channel support on Windows machines is still a work in progress.
- Bing maps – Fixed minor issue with marker not being displayed initially when the user switches to Bing maps from Google Maps.

Version 1.9.0 – Dec 7, 2015

New Features:

- Simplified the Player window GUI. Replaced the "Save Settings" buttons with a single disk icon. Click the disk icon to save settings for the currently playing movie. Click it again to delete the settings. See User's Manual for details.
- [Windows] Player window now remembers its position between restarts

- [Windows] Playback acceleration controls added to Windows version. Your results may vary.
- [Windows] Sync window movement option now works on Windows version.

Version 1.8.9 – Nov 28, 2015

New Features:

- Added support for Ausdom A261 Dashcam and additional RAC Dashcams.
- Sped-up auto-detection of dashcam type so movies load faster.
- Simplified Map window GUI to conserve space. Map window can now be made smaller than before.

Bug Fixes:

- Improved key press handling, especially the arrow and page up/down keys.

Version 1.8.7 – Oct 25, 2015

New Features:

- Added the Center checkbox to the Map view. You can toggle this option to have the map auto-center with the vehicle, or unselect it to have the map stay still and the vehicle marker move. Thanks to user Thomas D. for the suggestion.
- Added new keyboard shortcut: type 'A' in the Graph window to autoscale the view.
- Added support for zBlackBox_HD3
- [Mac] Added GPS support for Thinkware F550
- [Windows] Added GPS support for Thinkware F750. Strangely, this dashcam's MP4s won't play in the Mac version of DCV, nor in QuickTime Player.
- Added support for Contour+2 Action Cam
- Added support for newer version of ION Adventure Cam

Bug Fixes:

- The progress bar displayed after loading movies now displays meaningful progress.
- Improved the focus of the start/stop button in player window. This should make the spacebar start/stop function, and other keyboard shortcuts, more reliable.
- Fixed recently-introduced bug in which Koonlung K1S dashcam would only show the first channel.
- Better compatibility with GPS files from MINI dashcams
- Fixed bug in keyboard shortcuts for adjusting time offset in the Graph View.

Version 1.8.6 – Oct 10, 2015

New Features:

- Added new "Jump To" feature to quickly go to the fastest portion of the route or to a specific movie file.
- Added compatibility with HP F520G Dashcam
- Added compatibility with latest DJI Phantom 3 SRT file format. Phantom 3 altitude is now displayed in graph and in Dashboard view.

- Improvements to CSV export

Bug Fixes:

- Fixed bug in zooming and translation of videos within movie window frame.

Version 1.8.5 – Aug 23, 2015

New Features:

- Added support for LUKAS LK-7200 car DVR
- Updated GUI library for improved Win10 compatibility

Version 1.8.4 – Aug 2, 2015

New Features:

- Added support for Koonlung K1S dashcam. This is a 2-channel camera (front and rear). Both channels are displayed simultaneously (picture-in-picture) on the Mac version of Dashcam Viewer. If a CAM1 movie is loaded, DCV will attempt to find the corresponding CAM2 movie. The Windows version will display CAM1 only at this time.
- The Player window position is now saved from run to run on the Windows version (it was already saved in the Mac version).
- Improved speed of dashcam model auto-detection in some cases.

Bug Fixes:

- Fixed bug that made Dashcam Viewer act strange if the Player finished the last movie in the series and the user tried to scrub to an earlier part of the series.

Version 1.8.3 – July 18, 2015

New Features:

- Added support for newest revision DJI Phantom 3 SRT file format
- The player now stops playback after the last movie in the sequence is finished (previously, the player would loop back to the first movie)

Version 1.8.2 – July 11, 2015

Bug Fixes:

- Dashboard: Fixed bug in which the compass car icon appear to do random 360's when travelling south
- Fixed bug in bearing direction for Panorama S and Street Guardian SGZC12SG
- Falcon Zero F170: To workaround a bug in the F170 firmware speed computation, DCV now ignores the embedded speed values and instead computes speed based on sequential lat/lon points. This produces more accurate speed reading than the embedded speed. However, there is another firmware glitch in which the video overlaid speed lags the actual vehicle motion by about 2–3 seconds. DCV can do nothing about this. It will need to be fixed by the manufacturer in firmware.

Version 1.8.1 – July 4, 2015

New Features:

- Map View: The vehicle's route line is now color-coded based on speed. Faster speeds are blue and slower speeds are red. This allows you to see the slow and fast portions of your journey. The number of colors used and the values each color represent can be changed in the new Map Preferences.
- Map View: The Route and Markers settings are now preserved from run to run of Dashcam Viewer.
- Reorganized the Preferences window to better handle the growing number of options.
- Added support for RAC02 dashcam

Version 1.8.0 – June 26, 2015

New Features:

- Added a new analog speedometer to the Dashboard View
- The motion of the compass is now smooth instead of jerky
- Improved the visual appearance of the LCD displays in the Dashboard View

Version 1.7.8 – June 13, 2015

New Features:

- You can now autoscale the data in the Speed, Distance, Altitude, HDOP, and Sats in View plots by clicking the *Autoscale* button in the top left of the Graph view. Thanks to customer Daniel M. for this suggestion.
- Increased viewing area of Main Window by reducing unused space

Bug Fixes:

- [BlackVue DRx50GW-2CH] Fixed bug that would not show GPS data if user tried to play individual front channel movies.
- Fixed minor issue in which the Main Window would show a bogus date if no data was loaded and user clicked tabs in the Graph Window.

Version 1.7.7 – May 29, 2015

New Features:

- Added support for [Transcend DrivePro 220](#)
- [Windows] Dashcam Viewer is now a 64-bit application for improved performance. The improvements should reduce or eliminate video playback stuttering seen on some lower-end PCs. The 64-bit Dashcam Viewer now requires a 64-bit version of Win7 or Win8 to run.

Version 1.7.6 – May 22, 2015

New Features:

- Added new "Click To Go" mode in Map view. With this mode enabled clicking in the map will make the movie jump to the time when the vehicle was at that

position. Currently this is a Mac-version only feature. Working on Windows implementation. Thanks to Thomas D. for this suggestion.

- Added support for DJI Phantom 3 (best performance with 1080p movies). Thanks to P3 pilot Evan P. for his assistance.
- Added support for Navicam NC1000W (works on Windows and some but not all Macs)

Bug Fixes:

- Google Map mode in Map window should now work properly. Some people reported the Map would be entirely black when "Google" was selected. Hopefully this is fixed.
- Fixed bug in which Altitude graph contents looked squished until window was resized.

Version 1.7.5 – May 4, 2015

Bug Fixes:

- Changed the default Map view to Bing until I diagnose why some folks are reporting issues with Google maps.
- Fixed bug in which Falcon Zero logo would not show up in splash screen.

Version 1.7.4 – May 2, 2015

New Features:

- Added a "paste" button in the Registration window to make entering the registration code easier.
- G-Force and Extended GPS widgets in Data view and Graph view will now be hidden if the dashcam model does not support these features.
- Moved Google/Bing map preference to the Map window instead of the Preferences window.

Bug Fixes:

- Fixed bug that would crash DCV when loading 500+MB files from the F170HD dashcam.
- DCV will now process large movie files produced by Street Guardian SGZC12SG and Panorama 2 dashcams.

Version 1.7.3 – Apr 17, 2015

New Features:

- Added support for Falcon Zero F170HD dashcam
- Added support for Street Guardian SGZC12SG, SG9665GC dashcams
- Added option to check for updates upon startup (Preferences)

Version 1.7.2 – Mar 15, 2015

New Features:

- Mute and volume levels are now saved in the Settings File if “Save Settings” is clicked. Settings File’s are used to store Dashcam Viewer’s current settings whenever a particular movie is played.
- In the Graph windows, the green curve line alternates in brightness from movie to movie. This makes it easier to see the start points of movies in the Graphs.
- Welcome screen: Made the process for purchasing Dashcam Viewer and entering a registration code easier.
- When loading movies and GPS data taken by a DJI Phantom drone with GoPro and Flytrex logger, the car icon in the compass of the Data view changes to a quadcopter icon. ☺
- Dashcam Viewer is now compatible with the GPS data taken with a Flytrex Live 3G unit attached to a Phantom 2. Previously, DCV had only been tested with a Flytrex Core.

Bug fixes:

- Fixed typo in Preferences window.
- Raised the max number of points allowable in a single GPS file to 5000. Some Flytrex files store quite a bit of data and this may have caused a crash in earlier DCV versions.

Version 1.7.1 – Mar 8, 2015

New Features:

- Added support for automatically changing preferences on a per-movie basis. Users can store settings (including units, timezone offset, graph Y-axis range, etc) for the currently-playing movie and Dashcam Viewer will use those settings the next time that movie is played. For movies that don’t have a specific settings file, a default settings file can be specified. Thanks to Mart Rogers for the idea.
- Improved support for Mini 0805 GPS data format.
- Added support for E-prance 1296P Super HD dashcam

Bug fixes:

- [Windows version] Fixed bug that would prevent Google Maps mode from being displayed in Map view.

Version 1.7.0 – Feb 21, 2015

New Features:

- Added the ability to export a portion of the currently playing video to a separate movie file. This is useful for isolating key portions of a dashcam movie, say for providing to law enforcement or uploading to YouTube. When the Export Clip button is clicked you will be asked to enter the duration of the clip in seconds. You will then be able to select a folder for the output file. Dashcam Viewer will create the clip, starting at the current movie position, in the desired folder with an auto-generated filename derived from original movie name. No re-compression of the video is performed so that movie details are preserved.

Version 1.6.2 – Feb 3, 2015

New Features:

- Added preference to choose between Google Map or Bing Map for the Map view.
- Added keyboard shortcuts to the Graph view to shift the Timezone Offset by -10, -1, 1, or 10 seconds. This is useful for syncing the video to the GPS data. See Shortcuts for more info.

Bug Fixes:

- Null route points at lat/lon 0E/0N are no longer displayed on map.

Version 1.6.1 – Jan 13, 2015

New Features:

- Added support for video captured by a GoPro Hero3 mounted in a [DJI Phantom 2](#) quadcopter using GPS flight data logged by a [Flytrex Core](#). The Phantom is the most popular quadcopter in the market and the Flytrex Core is one of the most popular accessories for the Phantom. Dashcam Viewer will read the comma-separated value (CSV) data files produced by the Flytrex Core and animate the position of the quadcopter on a map as movie of the flight is shown in the Player window, simultaneously. Note that the GoPro movie and the CSV file must have the same base name. For example, beach_flyover.MP4 and beach_flyover.CSV. Please see: <https://www.youtube.com/watch?v=sIR6GD81eKA> for a demo of how this works. I guess you could call this aerial dashcam support. ;-)

Version 1.6.0 – Jan 1, 2015

New Features:

- Switched to using Bing Maps instead of Google Maps due to technical issues introduced into Google Maps API in mid-December 2014. Coincidentally(?), at the same time, Google announced it was going to deprecate the Maps API in Dec 2015 so switching to Bing Maps provides continuity.
- Added preliminary support for MINI 0805 GPS data format. This is in beta. Change the 0805 capture resolution to no higher than 1080p mode for movies to play in DCV.
- Better support for dashcams that store their altitude in nmea format, like the Vicovation Marcus series.
- Added support for the iSymDVR app, which turns the iPhone into a dashcam.
- Export of GPX now includes vehicle speed (in km/h)
- For dashcams that record vehicle altitude, altitude in meters will be exported in the GPX file.

Bug Fixes:

- Vehicle speed reported in GPX file is now meters/sec instead of km/hr as per GPX v1.0 specification.
- Movie start markers are more accurately placed on map.

Version 1.5.0 – Nov 23, 2014

New Features:

- Added support for MINI 0803 firmware version: FW20141031 V1.0. Previously, DCV would not be able to parse the GPS data produced by this firmware version. Thanks to Peter B. for pointing this out.

Version 1.4.9 – Nov 16, 2014

New Features:

- Users can now load and play individual movie files in Dashcam Viewer. Individual movie files can be selected from the File menu, toolbar, or be dragged and dropped from the desktop onto the Main Window. The prior method of selecting the parent movie folder still works.

Version 1.4.8 – Oct 5, 2014

New Features:

- Renamed the "Arrange" option (Under the "Windows" menu and toolbar) to "Sync Window Movement". If this option is selected, windows will be linked such that moving one window moves all of the windows. This applies to the Main Window, Data Window, Map Window, and Graph Window. Thanks to R.R. for the suggestion.
- [Mac version] Due to Apple security policy changes, OS X 10.8.5 or higher is required to run Dashcam Viewer.

Bug Fixes:

- [Mac version] Fixed bug in which the Main Window was not restored to the same size it was when Dashcam Viewer was last quit.

Version 1.4.7 – Sep 15, 2014

New Features:

- Added preference option to invert the direction of mouse zooming in the video window, as per user request.
- Added support for DOD GS600 dashcam
- User-tested compatibility with VicoVation Marcus4

Bug Fixes:

- Graph cursor no longer disappears when graph window is resized
- Temporarily disabled playback acceleration on Windows version due to some reports it does not work correctly.

Version 1.4.6 – Aug 24, 2014

New Features:

- GS1000 dashcam now displays the number of GPS satellites currently in view in Data window.

- Added support for Digitalk EI-640GSD GPS data
- [Mac version] Successfully tested Rollei Car DVR-110

Bug Fixes:

- Fixed bug in BlackVue GPS data processing which caused incorrect latitude to be displayed for southern latitude users.

Version 1.4.5 – July 26, 2014

New Features:

- Added the ability to display the vehicle's route on the Google Map. See the checkbox at the top of the Map view.
- Added the ability to turn on or off movie start markers on the Google Map.

Version 1.4.4 – July 23, 2014

New Features:

- Greatly improved map placemark accuracy. Vehicle location will not jump around on the map.
- Added preliminary support for Novatek Street Guardian SG9665GM dashcam
- Improved support for Mini 0803 GPS information display. Note that resolutions higher than 1080p do not seem to work in DCV. If the Mini 0803 videos do not appear to play, try reducing the resolution of the recording in the Mini's settings to 1080p.
- Added support for Visiondrive VD-9600 dual-channel dashcam. Use the free Visiondrive Converter to extract the front and rear movie channels plus the GPS data. See <http://dashcamviewer.com> for more details.
- Changed movie timer string from minutes (e.g., 1.5) to minutes:seconds (e.g., 1:30)

Bug Fixes:

- Improved handling of second channel movie window of two channel movies. If some movies do not have a second channel then the second video window is now hidden.
- Second channel video now has the correct aspect ratio of the video. Previously, the second channel video aspect ratio was hard-coded 2:1.

Version 1.4.3 – July 6, 2014

New Features:

- Added support for GS1000 "Orange Menu" family of dashcams
- Raised max speed limit to 300 (mph or km/h) on the Speed Plot at request of an Autobahn driver.
- Added G-force sensor support for MiVue 388

Version 1.4.2 – June 22, 2014

New Features:

- Added new background image to fill the empty movie window void upon startup

- Changed the wording of "kph" to "km/h" throughout program based on user recommendation

Bug Fixes:

- Made internal improvements for dual-channel cameras (like the Blackvue DR550GW-2CH). If the rear camera movie's file modification date was earlier than the front camera Dashcam Viewer would not play the rear channel.

Version 1.4.1 – May 17, 2014

New Features:

- Added support for Powerucc Panorama S dashcam
- Improved compatibility with Powerucc Panorama II with newer firmware

Bug Fixes:

- Improved PNG export-to-Desktop for some users. In some cases the PNG file was not written to the Desktop. Also, no error message was given if an export failed. Now an error message will be displayed if the PNG export fails.

Version 1.4.0 – May 10, 2014

New Features:

- Added accelerated movie playback controls. Playback rate can now vary between 1/16x to 2x real-time.
- When using the Export to PNG function, the filename of the PNG will contain both the source movie name and the time into the movie when the image was captured. For example: MOVIE001@0m3.45s.png
- Tested compatibility with Mini 0803 dashcam
- New application icon!

Version 1.3.5 – Apr 19, 2014

New Features:

- Added support for Vicovation Vico-Marcus1 and Vico-Marcus3 dashcams
- Right and left arrow keys provide frame-by-frame movie scrubbing
- Up Arrow key skips to next movie, Down Arrow key plays previous movie
- Page Up goes forward 10 movies, Page Down goes back 10 movies
- Double-clicking in Player window resets movie zoom/translation
- Export to PNG now saves PNG file to Desktop instead of Dashcam Viewer folder
- Added retina display support (beta)

Bug Fixes:

- Fixed display issue in which the graph cursor would disappear when the user switched between graphs when the animation was paused.

Version 1.3.4 – Apr 12, 2014

New Features:

- Added support for HP F210 dashcam

Version 1.3.3 – Apr 6, 2014

New Features:

- Improved the experience of zooming into or out of a movie. Now the zoom center point is whatever is in the middle of the movie window frame, which makes zeroing in on such things as license plates more intuitive. Previously the zoom center was the center of the movie (not the frame) which was not as intuitive.
- Added keyboard shortcuts for zooming and translation of the movie in the movie frame.
- Updated user manual

Version 1.3.2 – Mar 23, 2014

New Features:

- Added support for connecting to the internet via a proxy server
- Added option to "Auto-Fix" timezone every time a movie is played. This auto-corrects for bias' due to timezone or DST differences between movie modification date and GPS data.
- Data View window is now resizeable.

Bug Fixes:

- Fixed bug that could hide the hundred's digit in the longitude displayed in the Data view.

Version 1.3.0 – Mar 15, 2014

New Features:

- Added support for BlackVue DR550GW dual-camera dashcam. DCV will display both front and rear camera views in the main window. The rear view display can be dragged anywhere on top of the front view window and can be resized using the mouse scroll wheel.
- You can now translate and zoom the movie within the movie frame using the the mouse scroll wheel
- Added Recenter Movie toolbar button. This will center the video in the in the player window. This is useful if you have zoomed and/or translated the movie in its frame and want to restore it.
- Added "Export to PNG" toolbar button. This will take a screenshot of the viewer window and save it to a file in your Dashcam Viewer folder.
- Added option to change aspect ratio to fill screen or preserve original aspect ratio.
- Added new Preference controls to independently set the speed, altitude, and temperature units.
- Master slider now jumps through the individual movies when scrubbing

- Updated User Manual

Bug Fixes:

- Fixed bug that would crash DCV if the user attempted to scale the G-Forces graph using keyboard shortcuts

Version 1.2.0 – Feb 23, 2014

New Features:

- **Dashcam Viewer now runs on Microsoft Windows 7 and 8!** See the <http://earthshinesw.com/dashcam-viewer/> website for more info.
- Added movie playback and GPS data support for Powerucc Panorama II dashcam. Dashcam Viewer now supports the Mini 0801, BlackVue DR400, DR500, and Powerucc Panorama II dashcams.
- Added graphical displays of shock-sensor data for Panorama II, Mini 0801, and Blackvue DR400/500 cameras.
- Preferences: Added "auto-fix" option for correcting biases between camera timezone setting and computer timezone setting. Try this if you see the movie but the graph cursor is not moving.
- Preferences: Timezone offset setting is now in hrs/min/sec instead of decimal hours.
- Added Bring All To Front option under Windows menu
- Fixed sizing of splash window.
- Updated URL to website
- Updated User Manual

Bug Fixes:

- Assorted minor bug fixes

Version 1.1.0 – Feb 8, 2014

New Features:

- Data window: Click a button to retrieve the weather conditions at the location and time of the video capture!
- Data window: More GPS metrics are displayed for cameras that record them (like the BlackVue DR400 and DR500). These metrics include vehicle altitude, number of GPS satellites in use in geolocation, and GPS HDOP (horizontal dilution of precision), a measure of GPS position accuracy at the receiver.
- Data window: Added a new Calendar widget
- Graph window: Added plot of vehicle altitude above sea level
- Graph window: Added plot of HDOP
- Graph window: Added plot of number of GPS satellites in view
- Graph window: Removed graph of Computed Speed as it was redundant with Dashcam Speed plot
- DCV now remembers which windows were open and closed upon restart
- Timezone correction and clock offset are now in units of hours (not seconds)
- Registration codes are now understood even with carriage returns and spaces in them (extra white space can be introduced when a user copies/pastes the registration code from an email).

Bug Fixes:

- Improved "Arrange Windows" feature in cases where not all windows are visible. There is still work to be done here.

Version 1.0.4 – Jan 26, 2014

New Features:

- Drag-and-drop support: Users can now drag their SD card's movie folder from the Finder on to the Viewer window and the movies will start playing immediately. Mini 0801 owners can drag and drop the SD card's disk icon from the Finder onto DCV to load the movies and GPS data (no need to hunt for your movies folder).
- Added button in Data View to toggle between kph/mph
- Added preliminary support for BlackVue DR500 gps data files (let me how this works for you. I don't have one of these cameras.)
- DCV will close the data window, Graph Window, and Map Window, if a folder of movies is loaded that has no associated GPS data
- First public release