



# *Dashcam Viewer*

## *Version History*

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### **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 2<sup>nd</sup> channel videos. (In order to view 2<sup>nd</sup> channel videos, the corresponding 1<sup>st</sup> channel video must be loaded. The 2<sup>nd</sup> 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 2<sup>nd</sup> channel movie files to the 1<sup>st</sup> 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 workaroud 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 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 is you see the movie but the graph cursor is not moving.
- Preferences: Timezone offset setting is no 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 used 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/mpg
- 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