

CompassDrone Introduces Integration of DJI Video with ArcGIS



Full motion video (FMV) captured by the best-selling UAVs in the world can now be viewed, queried and used for professional mapping projects in Esri ArcGIS. CompassDrone will introduce DJI2FMV, a beta script soon to be rolled out as a web-accessible application, at the 2017 Esri Imaging & Mapping Forum in July.

CompassDrone developed DJI2FMV in cooperation with DJI, the leading provider of consumer and professional-grade imaging UAVs, to make DJI-captured video and telemetry accessible via the Esri Full Motion Video Multiplexer Add-in for ArcGIS. FMV mapping is used extensively in utility maintenance, public safety & security, crop monitoring, wildfire management, tree inventoring, and numerous public works projects.

The ability to extract mapping-grade data from full motion drone video has traditionally been available primarily to military organisations using costly unmanned aerial systems, said Hayden Howard, CompassDrone vice president. With the CompassDrone DJI2FMV tool, professional FMV mapping can be performed with the affordable and easy-to-use drones produced by DJI.

Product demonstration

Representatives from CompassDrone and DJI will demonstrate DJI2FMV and showcase the soon to be released CompassDrone Mapping app in booth M411 8 and 9 July at the Esri Imaging & Mapping Forum held just prior to the Esri User Conference in San Diego. The app will also be showcased in CompassCom's booth (2218) at the User Conference.

CompassDrone's Howard will discuss the development of DJI2FMV and its practical applications at 12:30 pm on Saturday 8 July, and again at 3:15 pm on Sunday 9 July, at the Imaging & Mapping Forum, which will be held in the Manchester Grand Hyatt in San Diego.

Telemetry

As a DJI dealer, CompassDrone supports DJI users in professional geospatial applications of their UAV systems. In developing DJI2FMV, CompassDrone mapping experts wrote a script that extracts 12 key telemetry elements collected by the drone during flight, such as locations, headings and attitudes of the camera and platform. The script then correlates this flight information with the captured FMV to match telemetry with every second of video.

DJI2FMV imports the telemetry and video files into Esri's FMV Multiplexer to create MISB-compliant videos in ArcGIS with full GIS functionality, said Howard.

ArcGIS

Once in ArcGIS, the video can be viewed and queried like any other GIS-ready image. Users can watch the video in one screen while viewing the drone's location and movement on a map display. Precise altitude and location coordinates can be queried at any point in the video. More importantly, the user can access ArcGIS tools to delineate and extract ground features in the video, and the resulting polygons show up instantly in the GIS map. Extraction can also be performed from the GIS map to the video.

Esri users have the ability to map features and objects directly from full motion video without leaving their ArcGIS environment, said Howard. The mapping results are fast and high quality.

For a limited time, CompassDrone is signing DJI2FMV beta users. To learn how to participate in the beta program, see [here](https://www.gim-international.com/content/news/compassdrone-introduces-integration-of-dji-video-with-arcgis).