

iOS SDK 4.4 Release Notes

Release Date

2017.12.22

Highlights

- **New Product Support:** Support for the Zenmuse X7 camera and Cendence remote controller.
- **Local Data Mode:** A new feature which allows operation without internet data transfer.
- **Flight Record:** Replacing the original SDK Logs, the new Flight Record system can be used to determine if a product warranty claim is valid.
- **Debug Log System:** When enabled, writes SDK internal states to a persistent file. SDK users can send this file to DJI to facilitate debugging.
- Support for UI Library v4.4.

Other Changes

- Interfaces related to the digital filter in `DJICamera` have been renamed to color for consistency with DJI GO. The original setter and getter for `SSDVideoDigitalFilter` have been renamed `SSDLegacyColor`.
- Added support for mechanical shutter switch.
- Interfaces related to fly zone have been renamed for consistency with DJI GO. `DJIFlyZoneTypeNFZ` and `DJIFlyZoneTypeGEO` have been merged and are now called `DJIFlyZoneTypeCircle`. See the diff file for more details.
- The wind warning has been added to `DJIFlightControllerState`.
- The internal logic used to determine the country in which the product is operating has been refactored in 4.4. The user's location information will not be sent to DJI servers.
- The type of `angularVelocity` in `DJIHotpointMission` has changed from `NSInteger` to `float` for improved accuracy.
- Setter and getter of `LeftWheelGimbalControlSpeedCoefficient` have been added to `DJIRemoteController`. Users can disable the remote control's left gimbal wheel by setting this parameter to 0.
- The enum `DJIObstacleDetectionSectorWarning` has been refactored to reflect recent firmware changes.

Supported Products

Products	<ul style="list-style-type: none">* Spark* Matrice 210* Matrice 210RTK* Matrice 200* Inspire 2* Mavic Pro* Phantom 4, Phantom 4 Pro & Phantom 4 Advanced* Matrice 600 & Matrice 600 Pro, RTK and Ronin MX* Phantom 3 Standard, Advanced, 4K & Professional* Inspire 1, Inspire 1 Pro & Inspire 1 RAW* Matrice 100 with X3, X5 & X5R* Osmo, Osmo Pro, Osmo RAW & Osmo+* Osmo Mobile* Lightbridge 2 with A2* Lightbridge 2 with standalone A3 or N3* Focus* N1 Video Encoder* Cendence
Cameras	<ul style="list-style-type: none">* Zenmuse X3, X5, X5R, Z3, Z30, X4S, X5S, X7* Spark Camera* Phantom 4 Pro Camera* Mavic Pro Camera* Phantom 4 Camera* Phantom 3 Cameras* Zenmuse XT

Supported Firmware

- Spark: 01.00.0701
- Matrice 200 series: 01.01.0412
- Phantom 4 Advanced: 01.00.0128
- Inspire 2: 01.01.0200
- Phantom 4 Pro: 01.04.0602
- Z30: 1.0.0.43
- N3: 1.7.1.5
- Mavic Pro: 01.04.0100
- Matrice 600 Pro: 1.0.1.65
- Matrice 600, RTK and Ronin MX: 1.0.1.65

- Phantom 4: 02.00.0106
- Zenmuse XT: 1.24.0.10
- Zenmuse Z3: 1.11.01.50
- Inspire 1 series: 1.11.01.50
- Osmo: 1.11.2.70
- Osmo Pro/RAW: 1.3.0.40
- Osmo+: 1.6.1.00
- Osmo Mobile: 1.6.0.80
- Phantom 3 Professional & Advanced: 1.11.20
- Phantom 3 Standard: 1.9.20
- Phantom 3 4K: 1.6.50
- Matrice 100: 1.3.1.0
- Lightbridge 2: 1.1.60
- A3: 1.7.1.5

Bug Fixes:

- **DJIAircraftYawAction improvement:** The logic related to `DJIAircraftYawAction` has been refactored because it would occasionally return `DJISDKFlightControllerErrorRunningVirtualStick` error.
- **Reset gimbal malfunctioning with Osmo Mobile:** Fixed in 4.4.
- **SDK returns wrong Osmo Mobile firmware package version:** Fixed in 4.4.
- **RTK push data frequency too low:** The RTK's state was previously updated at 1 Hz. In 4.4, the frequency has been increased to 10 Hz.
- **XT interval shot incompatibility with M210:** Fixed in 4.4.
- **Calling stopMission wouldn't stop TapFly or ActiveTrack missions:** Fixed in 4.4.
- **DJIGimbalAttitudeAction returned timeout error:** Fixed in 4.4.
- **Crash in 32-bit devices:** A change in 4.3 had made the SDK incompatible with iOS devices using 32-bit architecture. This has been fixed in 4.4.
- **Tripod mode failure first time it is called:** Fixed in 4.4.
- **Mavic Pro would return wrong goHomeExecutionState:** Mavic Pro would mistakenly return `DJIGoHomeExecutionStateTurnDirectionToHomePoint` after RTH finished. Fixed in 4.4.
- **Internal error -2009 returned by mistake:** Fixed in 4.4.
- **Completion block passed to deleteFiles may be called multiple times:** The completion block passed to `deleteFiles:withCompletion:` of `DJIMediaManager` would sometimes be called multiple times when the number of files was more than 20. Fixed in 4.4.
- **Pausing waypoint mission wouldn't update state of the operator:** If the user paused a waypoint mission using the RC's pause button, the waypoint mission operator would remain in execution state. Fixed in 4.4.
- **Osmo Mobile wouldn't update button state:** The `recordAndShutterButtons` of `DJIHandheldControllerHardwareState` was not updated when the physical button was

pressed. This has been fixed.

Known Issues

- **DJIShootPhotoAction Issue:** For products that support multiple focus modes, DJIShootPhotoAction requires the mode to be either MF or AF in order to execute successfully and will not work in AFC mode.
- **No error returned if a Waypoint Mission is stopped by user:** If a waypoint mission is stopped by calling `stopMissionWithCompletion:` or by changing switches, no error is returned through the listener. It will be fixed in the future SDK version and error with code `DJISDKMissionErrorStoppedByUser` will be returned.

© 2017 DJI. All Rights Reserved.

////////////////////////////////////

iOS SDK 4.3.2 Release Notes

Release Date

2017.10.17

Bug Fixes:

- **Memory leak:** In SDK 4.3 and SDK 4.3.1, there was a memory may leak during the life cycle of the application. This is fixed in 4.3.2.
- **High CPU usage:** CPU used by SDK is increased since 4.3. This is optimized in 4.3.2.
- **Unnecessary access to privacy-sensitive data:** SDK 4.3 includes requests to access the device's microphone and Apple Music. However, the SDK doesn't actually use these services and therefore the requests are removed from SDK 4.3.2.

© 2017 DJI. All Rights Reserved.

////////////////////////////////////

iOS SDK 4.3.1 Release Notes

Release Date

2017.09.18

Bug Fixes:

- **Uncaught exception caused by [NSKeyedUnarchiver decodeObjectForKey]:** if application is updated from SDK 4.2 to SDK 4.3 without re-installing, application may crash during the launch. It is fixed in 4.3.1.

© 2017 DJI. All Rights Reserved.

iOS SDK 4.3 Release Notes

Release Date

2017.09.15

Highlights

- Support for Matrice 210 and Matrice 210RTK
- Video playback support for the Osmo, XT, Z30, Phantom 3 Standard, and Phantom 3 Advanced cameras
- Refactored Flyzone Manager implementation
- New SDK Bridge app support which is now available through the app store. Previous version of the SDK won't be compatible with this new SDK Bridge app
- Bug fixes
- Support for UI Library v4.3

Other Changes

- "Trigger", a new Timeline feature, has been added to mission control. It enables the user to trigger specific action along the life cycle of timeline elements or the timeline itself.
- `DJILandAction` has been added to Timeline elements of mission control.
- `isAttitudeReset` in `DJIGimbalState` has been deprecated because it is no longer supported by firmware.
- Battery threshold related interfaces refactor:
 - `GoHomeBatteryThreshold` has been renamed `LowBatteryWarningThreshold`.
 - `LandImmediatelyBatteryThreshold` has been renamed `SeriousLowBatteryWarningThreshold`.
 - `isLowerThanBatteryWarningThreshold` and `isLowerThanSeriousBatteryWarningThreshold` have been added to `DJIFlightControllerState`.
- Support for Smart Return-To-Home (Smart RTH):
 - Setter and getter to enable Smart RTH.
 - Interface to confirm Smart RTH request.
 - `isAircraftRequestingToGoHome` in `DJIFlightControllerGoHomeAssessment` has been replaced with `smartRTHState` and `smartRTHCountdown`.
- The argument type of the home location's setter and getter has been changed from

`CLLocationCoordinate2D` to `CLLocation` to be consistent with key `DJIFlightControllerParamHomeLocation`.

- Support for enabling/disabling multiple flight modes.
- Support for enabling/disabling novice mode.
- Support for enabling/disabling infrared filter for the Z30 camera.

Supported Products

Products	<ul style="list-style-type: none">* Spark* Matrice 210* Matrice 210RTK* Matrice 200* Inspire 2* Mavic Pro* Phantom 4, Phantom 4 Pro & Phantom 4 Advanced* Matrice 600 & Matrice 600 Pro, RTK and Ronin MX* Phantom 3 Standard, Advanced, 4K & Professional* Inspire 1, Inspire 1 Pro & Inspire 1 RAW* Matrice 100 with X3, X5 & X5R* Osmo, Osmo Pro, Osmo RAW & Osmo+* Osmo Mobile* Lightbridge 2 with A2* Lightbridge 2 with standalone A3 or N3* Focus* N1 Video Encoder
Cameras	<ul style="list-style-type: none">* Zenmuse X3, X5, X5R, Z3, Z30, X4S, X5S* Spark Camera* Phantom 4 Pro Camera* Mavic Pro Camera* Phantom 4 Camera* Phantom 3 Cameras* Zenmuse XT

Supported Firmware

- Spark: 01.00.0600
- Matrice 200: 01.0.0100
- Phantom 4 Advanced: 01.00.0128

- Inspire 2: 01.01.0010
- Phantom 4 Pro: 01.04.0602
- Z30: 1.0.0.43
- N3: 1.7.1.5
- Mavic Pro: 01.03.1000
- Matrice 600 Pro: 1.0.1.60
- Matrice 600, RTK and Ronin MX: 1.0.1.60
- Phantom 4: 02.00.0106
- Zenmuse XT: 1.30.0.10
- Zenmuse Z3: 1.11.1.50
- Inspire 1: 1.10.1.50
- Inspire 1 Pro (X5 camera): 1.10.1.50
- Inspire 1 RAW (X5R camera): 1.10.1.50
- Osmo: 1.11.2.70
- Osmo Pro (X5 camera): 1.4.0.70
- Osmo RAW (X5R camera): 1.4.0.70
- Osmo+: 1.6.1.00
- Osmo Mobile: 1.6.0.80
- Phantom 3 Professional & Advanced: 1.11.20
- Phantom 3 Standard: 01.09.0200
- Phantom 3 4K: 1.6.50
- Matrice 100: 1.3.1.0
- Lightbridge 2: 1.1.60
- A3: 1.7.1.5

Bug Fixes:

- **Wrong argument type of max flight height and max flight radius:** Corrected, from float to int.
- **Cannot connect product through WiFi when mobile device connects to OS X:** A mobile device with iOS version 8.3.1 or higher couldn't previously connect to DJI products and OS X machine at the same time. This has been fixed.
- **Failure to get firmware package version of M100 and M200:** SDK couldn't previously get M100 and M200's firmware package version if there was no camera mounted. This has been fixed.
- **Crash during waypoint upload:** SDK could previously crash following a timeout which occurred during waypoint upload. Fixed.
- **Random crash in SDK:** Within SDK's internal logic, multiple threads could manipulate an array at the same time, causing the occasional crash. Fixed.
- **Memory leak when connecting to Osmo Mobile:** This has been fixed.
- **Missing key for AdvancedGestureControlEnabled:** Key has been added.
- **DJIMediaFile's name does not match file name in SD card:** For Phantom 4 Pro camera, Phantom 4 Advanced camera, and X4S and X5S cameras, DJIMediaFile's name didn't match the file name in SD card. It is fixed in 4.3.
- **stopTimeline does not reset the paused state:** This has been fixed.
- **DJIMissionControlTimelineEventStopped is not sent when stopping timeline:** Fixed.
- **Osmo Mobile connection issue:** SDK couldn't connect to Osmo Mobile after the device was paired in system settings. This has been fixed.
- **Consistent log output by SDK:** SDK would print *Could not successfully update network info during initialization* consistently on some devices. This has been fixed.
- **Cannot control the rotation time of gimbal:** Changing `time` in `DJIGimbalRotation` wouldn't take effect. This has been fixed.

Known Issues

- **DJIShootPhotoAction Issue:** For products that support multiple focus modes, DJIShootPhotoAction requires the mode to be either MF or AF in order to execute successfully and will not work in AFC mode.
- **No error returned if a Waypoint Mission is stopped by user:** If a waypoint mission is stopped by calling `stopMissionWithCompletion:` or by changing switches, no error is returned through the listener. It will be fixed in the future SDK version and error with code `DJISDKMissionErrorStoppedByUser` will be returned.

iOS SDK 4.2.2 Release Notes

Release Date

2017.07.07

Highlights

- Bug fixes

Supported Products

Products	<ul style="list-style-type: none">* Spark* Matrice 200* Inspire 2* Mavic Pro* Phantom 4, Phantom 4 Pro & Phantom 4 Advanced* Matrice 600 & Matrice 600 Pro, RTK and Ronin MX* Phantom 3 Standard, Advanced, 4K & Professional* Inspire 1, Inspire 1 Pro & Inspire 1 RAW* Matrice 100 with X3, X5 & X5R* Osmo, Osmo Pro, Osmo RAW & Osmo+* Osmo Mobile* Lightbridge 2 with A2* Lightbridge 2 with standalone A3 or N3* Focus* N1 Video Encoder
Cameras	<ul style="list-style-type: none">* Zenmuse X3, X5, X5R, Z3, Z30, X4S, X5S* Spark Camera* Phantom 4 Pro Camera* Mavic Pro Camera* Phantom 4 Camera* Phantom 3 Cameras* Zenmuse XT

Supported Firmware

- Spark: 01.00.0400
- Matrice 200: 01.00.00.0000
- Phantom 4 Advanced: 01.00.0128
- Inspire 2: 1.0.0330
- Phantom 4 Pro: 01.04.0602
- Z30: 1.0.0.37
- N3: 1.7.0.0
- Mavic Pro: 01.03.0900
- Matrice 600 Pro: 1.0.1.20
- Matrice 600, RTK and Ronin MX: 1.0.1.20
- Phantom 4: 1.2.602
- Zenmuse XT: 1.24.0.10
- Zenmuse Z3: 1.10.1.40
- Inspire 1: 1.10.1.40
- Inspire 1 Pro (X5 camera): 1.10.1.40
- Inspire 1 RAW (X5R camera): 1.10.1.40
- Osmo: 1.10.2.60
- Osmo Pro (X5 camera): 1.3.0.40
- Osmo RAW (X5R camera): 1.3.0.40
- Osmo+: 1.5.0.90
- Osmo Mobile: 1.6.0.80
- Phantom 3 Professional & Advanced: 1.10.90
- Phantom 3 Standard: 1.8.10
- Phantom 3 4K: 1.5.40
- Matrice 100: 1.3.1.0

- Lightbridge 2: 1.1.60
- A3: 1.7.0.0

Bug Fixes:

- Fixed shaky flight behavior in Spark.

Known Issues

- **No error returned if a Waypoint Mission is stopped by user:** If a waypoint mission is stopped by calling `stopMissionWithCompletion:` or by changing switches, no error is returned through the listener. It will be fixed in the future SDK version and error with code `DJISDKMissionErrorStoppedByUser` will be returned.

© 2017 DJI. All Rights Reserved.

////////////////////////////////////

iOS SDK 4.2.1 Release Notes

Release Date

2017.07.03

Highlights

- UI Library support
- Minor bug fixes

Supported Products

Products	<ul style="list-style-type: none">* Spark* Matrice 200* Inspire 2* Mavic Pro* Phantom 4, Phantom 4 Pro & Phantom 4 Advanced* Matrice 600 & Matrice 600 Pro, RTK and Ronin MX* Phantom 3 Standard, Advanced, 4K & Professional* Inspire 1, Inspire 1 Pro & Inspire 1 RAW* Matrice 100 with X3, X5 & X5R* Osmo, Osmo Pro, Osmo RAW & Osmo+* Osmo Mobile* Lightbridge 2 with A2* Lightbridge 2 with standalone A3 or N3* Focus* N1 Video Encoder
Cameras	<ul style="list-style-type: none">* Zenmuse X3, X5, X5R, Z3, Z30, X4S, X5S* Spark Camera* Phantom 4 Pro Camera* Mavic Pro Camera* Phantom 4 Camera* Phantom 3 Cameras* Zenmuse XT

Supported Firmware

- Spark: 01.00.0400
- Matrice 200: 01.00.00.0000
- Phantom 4 Advanced: 01.00.0128
- Inspire 2: 1.0.0330
- Phantom 4 Pro: 01.04.0602
- Z30: 1.0.0.37
- N3: 1.7.0.0
- Mavic Pro: 01.03.0900
- Matrice 600 Pro: 1.0.1.20
- Matrice 600, RTK and Ronin MX: 1.0.1.20
- Phantom 4: 1.2.602
- Zenmuse XT: 1.24.0.10
- Zenmuse Z3: 1.10.1.40
- Inspire 1: 1.10.1.40
- Inspire 1 Pro (X5 camera): 1.10.1.40
- Inspire 1 RAW (X5R camera): 1.10.1.40
- Osmo: 1.10.2.60
- Osmo Pro (X5 camera): 1.3.0.40
- Osmo RAW (X5R camera): 1.3.0.40
- Osmo+: 1.5.0.90
- Osmo Mobile: 1.6.0.80
- Phantom 3 Professional & Advanced: 1.10.90
- Phantom 3 Standard: 1.8.10
- Phantom 3 4K: 1.5.40
- Matrice 100: 1.3.1.0

- Lightbridge 2: 1.1.60
- A3: 1.7.0.0

Bug Fixes:

- None

Known Issues

- **No error returned if a Waypoint Mission is stopped by user:** If a waypoint mission is stopped by calling `stopMissionWithCompletion:` or by changing switches, no error is returned through the listener. It will be fixed in the future SDK version and error with code `DJISDKMissionErrorStoppedByUser` will be returned.

© 2017 DJI. All Rights Reserved.

////////////////////////////////////

iOS SDK 4.2 Release Notes

Release Date

2017.6.23

Highlights

- **Spark Support:** Spark is supported in Mobile SDK 4.2.
- **Media Manager Refactor:** Robust, easier to manage media files. A task scheduler is also added to conveniently allow the small content types of media files (preview, thumbnail and custom data) to be downloaded to the mobile device. The scheduler can be used to queue and download content from a series of files, as well as used to re-prioritize files during the download process.

Supported Products

Products	<ul style="list-style-type: none"> * Spark * Matrice 200 * Inspire 2 * Mavic Pro * Phantom 4, Phantom 4 Pro & Phantom 4 Advanced * Matrice 600 & Matrice 600 Pro, RTK and Ronin MX * Phantom 3 Standard, Advanced, 4K & Professional * Inspire 1, Inspire 1 Pro & Inspire 1 RAW * Matrice 100 with X3, X5 & X5R * Osmo, Osmo Pro, Osmo RAW & Osmo+ * Osmo Mobile * Lightbridge 2 with A2 * Lightbridge 2 with standalone A3 or N3 * Focus * N1 Video Encoder
Cameras	<ul style="list-style-type: none"> * Zenmuse X3, X5, X5R, Z3, Z30, X4S, X5S * Spark Camera * Phantom 4 Pro Camera * Mavic Pro Camera * Phantom 4 Camera * Phantom 3 Cameras * Zenmuse XT

Supported Firmware

- Spark: 01.00.0400
- Matrice 200: 01.00.00.0000
- Phantom 4 Advanced: 01.00.0128
- Inspire 2: 1.0.0330
- Phantom 4 Pro: 01.04.0602
- Z30: 1.0.0.37
- N3: 1.7.0.0
- Mavic Pro: 01.03.0900
- Matrice 600 Pro: 1.0.1.20

- Matrice 600, RTK and Ronin MX: 1.0.1.20
- Phantom 4: 1.2.602
- Zenmuse XT: 1.24.0.10
- Zenmuse Z3: 1.10.1.40
- Inspire 1: 1.10.1.40
- Inspire 1 Pro (X5 camera): 1.10.1.40
- Inspire 1 RAW (X5R camera): 1.10.1.40
- Osmo: 1.10.2.60
- Osmo Pro (X5 camera): 1.3.0.40
- Osmo RAW (X5R camera): 1.3.0.40
- Osmo+: 1.5.0.90
- Osmo Mobile: 1.6.0.80
- Phantom 3 Professional & Advanced: 1.10.90
- Phantom 3 Standard: 1.8.10
- Phantom 3 4K: 1.5.40
- Matrice 100: 1.3.1.0
- Lightbridge 2: 1.1.60
- A3: 1.7.0.0

Bug Fixes:

- **Video feeder doesn't work in iOS 10.3 Simulator:** This has been fixed.
- **Random crash when using login interface:** Calling `logIntoDJIUserAccountWithAuthorizationRequired:withCompletion:` may crash the application. This has been fixed.
- **Incorrect value returned by DJIRemoteControllerParamRCHardwareFlightModeSwitchState:** In 4.1.1, value returned by `DJIRemoteControllerParamRCHardwareFlightModeSwitchState` is different from the correct value returned by `remoteController:didUpdateHardwareState:`. This has been fixed.

Known Issues

- **No error returned if a Waypoint Mission is stopped by user:** If a waypoint mission is stopped by calling `stopMissionWithCompletion:` or by changing switches, no error is returned through the listener. It will be fixed in the future SDK version and error with code `DJISDKMissionErrorStoppedByUser` will be returned.

© 2017 DJI. All Rights Reserved.



iOS SDK 4.1.1 Release Notes

Release Date

2017.06.06

Highlights

- Minor bug fixes. See below.

Supported Products

Products	<ul style="list-style-type: none">* Matrice 200* Inspire 2* Mavic Pro* Phantom 4, Phantom 4 Pro & Phantom 4 Advanced* Matrice 600 & Matrice 600 Pro, RTK and Ronin MX* Phantom 3 Standard, Advanced, 4K & Professional* Inspire 1, Inspire 1 Pro & Inspire 1 RAW* Matrice 100 with X3, X5 & X5R* Osmo, Osmo Pro, Osmo RAW & Osmo+* Osmo Mobile* Lightbridge 2 with A2* Lightbridge 2 with standalone A3 or N3* Focus* N1 Video Encoder
Cameras	<ul style="list-style-type: none">* Zenmuse X3, X5, X5R, Z3, Z30, X4S, X5S* Phantom 4 Pro Camera* Mavic Pro Camera* Phantom 4 Camera* Phantom 3 Cameras* Zenmuse XT

Supported Firmware

- Matrice 200: upcoming

- Phantom 4 Advanced: 2.1.0.0
- Inspire 2: 1.0.0330
- Phantom 4 Pro: 1.3.0509
- Z30: 1.0.0.20
- N3: 1.7.0.0
- Mavic Pro: 1.3.7
- Matrice 600 Pro: 1.0.1.20
- Matrice 600, RTK and Ronin MX: 1.0.1.20
- Phantom 4: 1.2.602
- Zenmuse XT: 1.24.0.10
- Zenmuse Z3: 1.10.1.40
- Inspire 1: 1.10.1.40
- Inspire 1 Pro (X5 camera): 1.10.1.40
- Inspire 1 RAW (X5R camera): 1.10.1.40
- Osmo: 1.8.2.40
- Osmo Pro (X5 camera): 1.3.0.40
- Osmo RAW (X5R camera): 1.3.0.40
- Osmo+: 1.5.0.90
- Osmo Mobile: 1.5.0.70
- Phantom 3 Professional & Advanced: 1.10.90
- Phantom 3 Standard: 1.8.10
- Phantom 3 4K: 1.5.40
- Matrice 100: 1.3.1.0
- Lightbridge 2: 1.1.60
- A3: 1.7.0.0

Bug Fixes:

- **Incorrect data returned by DJIPlaybackManager delegate method:** This has been fixed.
- **Calling loadMission does not reset operator's state:** A successful call of `loadMission` does not reset the operator's state to `DJIWaypointMissionStateReadyToUpload`. This has been fixed.
- **Upload mission fails with Inspire 1:** With Inspire 1, uploading a waypoint mission may return an error even the mission is uploaded successfully. This has been fixed.

Known Issues

- **No error returned if a Waypoint Mission is stopped by user:** If a waypoint mission is stopped by calling `stopMissionWithCompletion:` or by changing switches, no error is returned through the listener. It will be fixed in the future SDK version and error with code `DJISDKMissionErrorStoppedByUser` will be returned.

© 2017 DJI. All Rights Reserved.

iOS SDK 4.1 Release Notes

Release Date

2017.5.24

Highlights

- APIs for application activation system. See details in the next section.
- Matrice 200 support
- Phantom 4 Advanced support
- APIs for working with individually unlocked fly zones

Application Activation

In July, DJI aircraft firmware will require mobile applications that control DJI aircraft to be activated with the user's DJI account, if that application is being used in China. This will ensure operators use the correct set of geospatial information and flight functions for their aircraft, as determined by their geographical location and user profile.

A summary of the activation system is:

- On July 1, this feature will go live on all aircraft (except standalone A3 and N3) that have been upgraded to the latest firmware
- Users in China will be required to activate their application by logging into their DJI account at least once every three months within the application
- Activation will be persistent in the application until the user logs out
- A data connection will be required to log into a DJI account
- Outside of China, the SDK will automatically activate the application without requiring the user to log in
- If an application is not activated, or a legacy version of the SDK is being used, all camera live streams will be disabled, and flight will be limited to a cylinder of 100m diameter and 30m height to ensure the aircraft stays within line of sight.

v4.1 of the Mobile SDK includes APIs to support this system. Applications should update to v4.1 as soon as

they can to support the activation system natively. For applications that are not upgraded to v4.1 or activated by the user, full aircraft functionality can still be achieved by first connecting any other upgraded/activated application on each power cycle of the aircraft. For example, DJI Go could be initially connected to the aircraft, then the user could switch to the SDK based application.

Support for Individually Unlocked Fly Zones

Restricted fly zones can be unlocked on an individual basis. Unlocking is done through the DJI web site [here](#). APIs have been added to the SDK to support these unlocked fly zones.

Supported Products

Products	<ul style="list-style-type: none">* Matrice 200* Inspire 2* Mavic Pro* Phantom 4, Phantom 4 Pro & Phantom 4 Advanced* Matrice 600 & Matrice 600 Pro, RTK and Ronin MX* Phantom 3 Standard, Advanced, 4K & Professional* Inspire 1, Inspire 1 Pro & Inspire 1 RAW* Matrice 100 with X3, X5 & X5R* Osmo, Osmo Pro, Osmo RAW & Osmo+* Osmo Mobile* Lightbridge 2 with A2* Lightbridge 2 with standalone A3 or N3* Focus* N1 Video Encoder
Cameras	<ul style="list-style-type: none">* Zenmuse X3, X5, X5R, Z3, Z30, X4S, X5S* Phantom 4 Pro Camera* Mavic Pro Camera* Phantom 4 Camera* Phantom 3 Cameras* Zenmuse XT

Supported Firmware

- Matrice 200: upcoming
- Phantom 4 Advanced: 2.1.0.0
- Inspire 2: 1.0.0330

- Phantom 4 Pro: 1.3.0509
- Z30: 1.0.0.20
- N3: 1.7.0.0
- Mavic Pro: 1.3.7
- Matrice 600 Pro: 1.0.1.20
- Matrice 600, RTK and Ronin MX: 1.0.1.20
- Phantom 4: 1.2.602
- Zenmuse XT: 1.24.0.10
- Zenmuse Z3: 1.10.1.40
- Inspire 1: 1.10.1.40
- Inspire 1 Pro (X5 camera): 1.10.1.40
- Inspire 1 RAW (X5R camera): 1.10.1.40
- Osmo: 1.8.2.40
- Osmo Pro (X5 camera): 1.3.0.40
- Osmo RAW (X5R camera): 1.3.0.40
- Osmo+: 1.5.0.90
- Osmo Mobile: 1.5.0.70
- Phantom 3 Professional & Advanced: 1.10.90
- Phantom 3 Standard: 1.8.10
- Phantom 3 4K: 1.5.40
- Matrice 100: 1.3.1.0
- Lightbridge 2: 1.1.60
- A3: 1.7.0.0

Bug Fixes:

- **Secondary video feed:** Issue fixed whereby the secondary video feed stopped working after reconnection.
- **Occasional Osmo crashes:** Issue fixed whereby an unstable connection between the Osmo and SDK might result in application crash.
- **State machine of Waypoint Mission Operator getting stuck:** When user paused a mission while the aircraft was close to and flying towards the last waypoint, the state of Waypoint Mission Operator would get stuck in a paused state while the mission actually ended. This has been fixed.
- **Crash when re-uploading waypoints:** The SDK would sometimes crash if the previous upload returned a timeout error and the user called the upload mission for the second time without calling `loadMission:`. This has been fixed.
- **Wrong mapping in DJIRCHardwareState:** For `rightStick` in `DJIRCHardwareState`, the `horizontalPosition` and `verticalPosition` were swapped. Fixed.
- **Having multiple missions in timeline would fail:** If multiple missions (e.g. one Waypoint Mission and one Hotpoint Mission) were added to the timeline of `DJIMissionControl`, the execution of the timeline would fail. This is fixed.

Known Issues

- **No error returned if a Waypoint Mission is stopped by user:** If a waypoint mission is stopped by calling `stopMissionWithCompletion:` or by changing switches, no error is returned through the listener. It will be fixed in the future SDK version and error with code `DJISDKMissionErrorStoppedByUser` will be returned.

Other Changes

- **Support custom information in media file's XMP meta data:** With the upcoming firmware of Phantom 4 Pro, Phantom 4 Advanced and Inspire 2, custom information can be stored within the XMP meta data of the media files.
- The type of `homeLocation` and `aircraftLocation` in `DJIFlightControllerState` has been changed from `CLLocationCoordinate2D` to `CLLocation` in order to make the data type consistent with the one returned by keys through `DJIKeyManager`.

iOS SDK 4.0.1 Release Notes

Release Date

2017.4.18

Highlights

SDK 4.0.1 includes some minor changes to support UI Library. See the iOS diff for the full list of differences from SDK 4.0.

Supported Products

Products	<ul style="list-style-type: none">* Inspire 2* Mavic Pro* Phantom 4 & Phantom 4 Pro* Matrice 600 & Matrice 600 Pro, RTK and Ronin MX* Phantom 3 Standard, Advanced, 4K & Professional* Inspire 1, Inspire 1 Pro & Inspire 1 RAW* Matrice 100 with X3, X5 & X5R* Osmo, Osmo Pro, Osmo RAW & Osmo+* Osmo Mobile* Lightbridge 2 with A2* Lightbridge 2 with standalone A3 or N3* Focus* N1 Video Encoder
Cameras	<ul style="list-style-type: none">* Zenmuse X3, X5, X5R, Z3, Z30, X4S, X5S* Phantom 4 Pro Camera* Mavic Pro Camera* Phantom 4 Camera* Phantom 3 Cameras* Zenmuse XT

Supported Firmware

- Inspire 2: 1.0.0330

- Phantom 4 Pro: 1.3.509
- Z30: 1.0.0.20
- N3: 1.7.0.0
- Mavic Pro: 1.3.6
- Matrice 600 Pro: 1.0.0.80
- Matrice 600, RTK and Ronin MX: 1.0.0.80
- Phantom 4: 1.2.602
- Zenmuse XT: 1.24.0.10
- Zenmuse Z3: 1.10.1.40
- Inspire 1: 1.10.1.40
- Inspire 1 Pro (X5 camera): 1.10.1.40
- Inspire 1 RAW (X5R camera): 1.10.1.40
- Osmo: 1.8.2.40
- Osmo Pro (X5 camera): 1.3.0.40
- Osmo RAW (X5R camera): 1.3.0.40
- Osmo+: 1.4.0.70
- Osmo Mobile: 1.5.0.70
- Phantom 3 Professional & Advanced: 1.10.90
- Phantom 3 Standard: 1.8.10
- Phantom 3 4K: 1.5.40
- Matrice 100: 1.3.1.0
- Lightbridge 2: 1.1.50
- A3: 1.7.0.0

Bug Fixes

- **Firmware issue:** Issue was fixed whereby Mavic, Phantom 4 Pro, and Inspire 2 had unpredictable behavior when using virtual stick mode. This bug included yaw actions in any mission when using the above products.

Known Issues

- **Firmware issue:** Sometimes video cannot be recorded directly after taking a photo at a waypoint in a Waypoint Mission.
- **Website Documentation:** The website documentation and tutorials are not yet updated for SDK 4.0 interfaces and concepts. The website will be updated in the coming weeks.
- **API Documentation search doesn't work for SDK Keys:** When you search the API documentation, SDK keys are not yet included in the search results. This will be updated soon.

iOS SDK 4.0 Release Notes

Release Date

2017.03.28

Highlights

SDK 4.0 provides large efficiency improvements in developing with the Mobile SDK.

- **UI Libraries:** SDK 4.0 includes a set of UI Libraries to enable rapid application development. UI Libraries is currently in Beta, and will be updated soon to a full release.
- **SDK Keys:** Subscription mechanism for existing SDK interfaces allowing cleaner, more efficient application code. See more details [here](#).
- **Mission Manager Refactor:** Robust, easier to manage missions. Mission Control is introduced which contains mission operators and a mission timeline. The mission operators are used to control and get accurate state information for each of the missions. The mission timeline replaces the custom mission, as a way to sequentially execute missions and actions. It also includes a mechanism to have triggers during a mission, and allows creation of custom timeline elements. See more details [here](#).
- **API update:** More consistent, intuitive naming. Completely new to the SDK, is the Video Feeder interface, which enables subscription to the aircraft's video feeds. Media Manager has also been updated to include playback functionality for the Inspire 2 and Phantom 4 Pro. See [here](#) for an API diff comparing 3.5 to 4.0 and [here](#) for 4.0 Beta to 4.0.
- **Revamped API Documentation:** Our online and offline documentation has been completely refactored to be easier to explore and search. APIs are largely ordered by functionality in an effort to improve discoverability. A search feature is included to more quickly find the API you're looking for.
- **No-Fly-Zone Update:** add support for the polygon no-fly-zone.

Note: Important Change

There is a change to how you enter the App Key into your application. The key is now added in the info.plist file as a string value (The key value is **DJISDKAppKey**). See the sample app for details.

Supported Products

Products	<ul style="list-style-type: none"> * Inspire 2 * Mavic Pro * Phantom 4 & Phantom 4 Pro * Matrice 600 & Matrice 600 Pro, RTK and Ronin MX * Phantom 3 Standard, Advanced, 4K & Professional * Inspire 1, Inspire 1 Pro & Inspire 1 RAW * Matrice 100 with X3, X5 & X5R * Osmo, Osmo Pro, Osmo RAW & Osmo+ * Osmo Mobile * Lightbridge 2 with A2 * Lightbridge 2 with standalone A3 or N3 * Focus * N1 Video Encoder
Cameras	<ul style="list-style-type: none"> * Zenmuse X3, X5, X5R, Z3, Z30, X4S, X5S * Phantom 4 Pro Camera * Mavic Pro Camera * Phantom 4 Camera * Phantom 3 Cameras * Zenmuse XT

Supported Firmware

- Inspire 2: 1.0.0240
- Phantom 4 Pro: 1.3.418
- Z30: 1.0.0.20
- N3: 1.7.0.0
- Mavic Pro: 1.3.5
- Matrice 600 Pro: 1.0.0.80
- Matrice 600, RTK and Ronin MX: 1.0.0.80
- Phantom 4: 1.2.602
- Zenmuse XT: 1.24.0.10
- Zenmuse Z3: 1.10.1.40
- Inspire 1: 1.10.1.40

- Inspire 1 Pro (X5 camera): 1.10.1.40
- Inspire 1 RAW (X5R camera): 1.10.1.40
- Osmo: 1.8.2.40
- Osmo Pro (X5 camera): 1.3.0.40
- Osmo RAW (X5R camera): 1.3.0.40
- Osmo+: 1.4.0.70
- Osmo Mobile: 1.5.0.70
- Phantom 3 Professional & Advanced: 1.10.90
- Phantom 3 Standard: 1.8.10
- Phantom 3 4K: 1.5.40
- Matrice 100: 1.3.1.0
- Lightbridge 2: 1.1.50
- A3: 1.7.0.0

Known Issues

- **Firmware issue:** Unpredictable behavior when using virtual stick mode, with Mavic Pro, Phantom 4 Pro and Inspire 2.
- **Firmware issue:** Yaw action in any mission with affected products is impacted by the virtual stick firmware bug. Avoid yaw actions.
- **Firmware issue:** Sometimes video cannot be recorded directly after taking a photo at a waypoint in a Waypoint Mission.
- **Website Documentation:** The website documentation and tutorials are not yet updated for SDK 4.0 interfaces and concepts. The website will be updated in the coming weeks.
- **API Documentation search doesn't work for SDK Keys:** When you search the API documentation, SDK keys are not yet included in the search results. This will be updated soon.

iOS SDK 3.5.1 Release Notes

Release Date

2017.01.16

Bug Fixes

- **GEO does not work for Phantom 4 Pro, A3, N3 or Matrice 600(Pro):** It is fixed in 3.5.1.

© 2017 DJI. All Rights Reserved.

////////////////////////////////////

iOS SDK 3.5 Release Notes

Release Date

2016.12.13

Highlights

Mobile SDK 3.5 is now available on our developer website. More information can be obtained from the [Github page](#).

- **New product support:** DJI's latest products, Phantom 4 Pro and Inspire 2, are supported in Mobile SDK 3.5. Support has also been added for Zenmuse Z30, N3 and Matrice 600 Pro.

Other Changes

- **New features of Osmo Mobile:** an interface to control LED of the handheld controller and an interface to disable the gimbal control by the stick are added in 3.5. More states of the handheld controller are returned in 3.5.
- **New features of Waypoint Mission:** with SDK 3.5 and flight controller firmware 3.2.10.0 or above the flight speed for each waypoint in a mission can be set. Additionally, the camera can be configured to automatically take shots at either a fixed time or distance interval between waypoints.
- **Interface changes:**
 - Phantom 4 Pro and Inspire 2 support changing the Lightbridge frequency band between 2.4 GHz and 5 GHz. In addition to new interfaces to support this, several existing interfaces needed to be updated:
 - `DJILBAirLinkAllChannelSignalStrengths` is replaced by `DJILBAirLinkChannelInterference` .
 - `lbAirLink:didUpdateAllChannelSignalStrengths:` in `DJILBAirLinkDelegate` is replaced by `lbAirLink:didUpdateAllChannelInterference:` .
 - Inspire 2 allows recording of video to SSD that is not only RAW format. Therefore, `setSSDRawVideoResolution:andFrameRate:withCompletion:` is renamed as `setSSDVideoResolution:andFrameRate:withCompletion:` .
`getSSDRawVideoResolutionAndFrameRateWithCompletion:` is renamed as

`getSSDVideoResolutionAndFrameRateWithCompletion:` .

- Values of `DJICameraVideoFrameRate` are renamed. The suffix `fps` is changed to `FPS` and more accurate representations of the frame rate are used.
`DJICameraVideoFrameRate24fps` is renamed to `DJICameraVideoFrameRate23dot976FPS` . `DJICameraVideoFrameRate30fps` is renamed to `DJICameraVideoFrameRate29dot970FPS` .
`DJICameraVideoFrameRate48fps` is renamed to `DJICameraVideoFrameRate47dot950FPS` . `DJICameraVideoFrameRate60fps` is renamed to `DJICameraVideoFrameRate59dot940FPS` . A new enum value `DJICameraVideoFrameRate24FPS` is added which represents the precise 24.0 FPS for newer products.
- Interfaces related to remote controller's flight mode switch are refactored. The struct `DJIRCHardwareFlightModeSwitch` is replaced by an enum `DJIRemoteControllerFlightModeSwitchPosition` , which will only provide the position the switch is in. The flight mode the switch position represents can then be retrieved by `getRemoteControllerFlightModeMappingWithCompletion:` in `DJIFlightController` .

Supported Products

Products	<ul style="list-style-type: none">* Inspire 2* Mavic Pro* Phantom 4 & Phantom 4 Pro* Matrice 600 & Matrice 600 Pro, RTK and Ronin MX* Phantom 3 Standard, Advanced, 4K & Professional* Inspire 1, Inspire 1 Pro & Inspire 1 RAW* Matrice 100 with X3, X5 & X5R* Osmo, Osmo Pro, Osmo RAW & Osmo+* Osmo Mobile* Lightbridge 2 with A2* Lightbridge 2 with standalone A3 or N3* Focus* N1 Video Encoder
Cameras	<ul style="list-style-type: none">* Zenmuse X3, X5, X5R, Z3, Z30, X4S, X5S* Phantom 4 Pro Camera* Mavic Pro Camera* Phantom 4 Camera* Phantom 3 Cameras* Zenmuse XT

Supported Firmwares

- Inspire 2: upcoming
- Phantom 4 Pro: 1.1.203
- Z30: 1.0.0.6
- N3: 1.0.0.8
- Mavic Pro: 1.2.7
- Matrice 600 Pro: 1.0.0.54
- Matrice 600, RTK and Ronin MX: 1.0.0.43
- Phantom 4: 1.2.602
- Zenmuse XT: 1.22.0.0
- Zenmuse Z3: 1.9.1.40
- Inspire 1: 1.9.1.30
- Inspire 1 Pro (X5 camera): 1.9.1.30
- Inspire 1 RAW (X5R camera): 1.9.1.30
- Osmo: 1.8.2.40
- Osmo Pro (X5 camera): 1.3.0.40
- Osmo RAW (X5R camera): 1.3.0.40
- Osmo+: 1.3.0.50
- Osmo Mobile: 1.3.0.50
- Phantom 3 Professional & Advanced: 1.9.60
- Phantom 3 Standard: 1.6.80
- Phantom 3 4K: 1.5.40
- Matrice 100: 1.3.1.0
- Lightbridge 2: 1.1.40

- A3: 1.5.0.0

Known Issues

- **camera:didGenerateNewMediaFile: does not work for Inspire 2 and Phantom 4 Pro:** This will be addressed in the future firmware versions.

Bug Fixes

- **Incorrect diagnostics message for Mavic Pro:** with Mavic Pro, the SDK will report a diagnostics error about a video decoder encryption error by mistake. It is fixed in 3.5.
- **isAdjustableFocalPointSupported returns NO on Inspire 1 Pro:** It is fixed in 3.5.

© 2016 DJI. All Rights Reserved.

////////////////////////////////////

iOS SDK 3.4.1 Release Notes

Release Date

2016.11.10

Bug Fixes

- **DJIBatteryDelegate does not always work:** For Mavic Pro the delegate methods in `DJIBatteryDelegate` are sometimes not called until the `DJIBattery` instance is reset. It is fixed in 3.4.1.
- **Cannot stop ActiveTrack mission after application restart:** If the application is terminated while the ActiveTrack mission is running, then when the application is restarted the ActiveTrack mission cannot be stopped. It is fixed in 3.4.1.

© 2016 DJI. All Rights Reserved.



iOS SDK 3.4 Release Notes

Release Date

2016.10.28

Highlights

Mobile SDK 3.4 is now available on our developer website. More information can be obtained from the [Github page](#).

- **New product support:** DJI's latest product Mavic Pro is supported in Mobile SDK 3.4. All features of Mavic Pro are supported.

Other Changes

- **New firmware support:** Mobile SDK 3.4 added support for Flight Controller Firmware version 3.2.0.0 and above.
 - Confirmation for landing is required when the clearance between aircraft and the ground is less than 0.3 meters. Use `isLandingConfirmationNeeded` in `DJIFlightControllerCurrentState` to know when confirmation is required, and then the method `confirmLandingWithCompletion:` to continue the landing. A property is also added to `DJIGoHomeStep` to enable automatic confirmation during the custom mission.
 - The new firmware requires rotating the aircraft during IMU calibration. `DJIIMUMultiOrientationCalibrationHint` is added to `DJIIMUState` to help the user calibrate the IMU(s).
- **Interface change:**
 - Enum value `DJIWiFiFrequencyBand5Dot8G` is renamed to `DJIWiFiFrequencyBand5G`.
 - `getLEDsEnabled:` in `DJIFlightController` is renamed to `getLEDsEnabledwithCompletion:` for consistency.
 - An unused enum `DJIHandheldWiFiFrequencyType` is removed.
 - Property `acceleratorStatus` in `DJIIMUState` is renamed to `accelerometerStatus`.

- Delegate methods in `DJILBAirLinkDelegate` use strong typed `NSArray` now.
- Delegate method `wifi:didUpdatesWiFiSignalQuality:` is renamed to `wifi:didUpdateWiFiSignalQuality:`.
- `getLegacySerialNumberWithCompletion:` has been added to `DJIBaseComponent` as the serial number returned by `getSerialNumberWithCompletion:` has changed in v3.4 (see Bug Fixes). `getLegacySerialNumberWithCompletion:` returns the serial number used in Mobile SDK v3.3 and prior, and will be removed in a future version of the sdk.

Supported Products

Products	<ul style="list-style-type: none"> * Mavic Pro * Matrice 600, RTK and Ronin MX * Phantom 4 * Phantom 3 Standard, Advanced, 4K & Professional * Inspire 1, Inspire 1 Pro & Inspire 1 RAW * Matrice 100 with X3, X5 & X5R * Osmo, Osmo Pro, Osmo RAW & Osmo+ * Osmo Mobile * Lightbridge 2 with A2 * Lightbridge 2 with standalone A3 * Focus * N1 Video Encoder
Cameras	<ul style="list-style-type: none"> * Mavic Pro Camera * Phantom 4 Camera * Phantom 3 Cameras * Zenmuse X3, X5, X5R, Z3 * Zenmuse XT

Supported Firmwares

- Mavic Pro: 1.2.7
- Matrice 600, RTK and Ronin MX: 1.0.0.43
- Phantom 4: 1.2.503
- Zenmuse XT: 1.22.0.0
- Zenmuse Z3: 1.9.1.30

- Inspire 1: 1.9.1.30
- Inspire 1 Pro (X5 camera): 1.9.1.30
- Inspire 1 RAW (X5R camera): 1.9.1.30
- Osmo: 1.8.2.40
- Osmo Pro (X5 camera): 1.3.0.40
- Osmo RAW (X5R camera): 1.3.0.40
- Osmo+: 1.2.0.40
- Osmo Mobile: 1.2.0.40
- Phantom 3 Professional & Advanced: 1.9.60
- Phantom 3 Standard: 1.6.80
- Phantom 3 4K: 1.5.40
- Matrice 100: 1.3.1.0
- Lightbridge 2: 1.1.40
- A3: 1.3.0.0

Known Issues

- **Wrong goHomeButton status for Mavic Pro:** The `buttonDown` value of `goHomeButton` in `DJIRCHardwareState` is always `NO` for Mavic Pro.
 - **Workaround:** This will be addressed in a future firmware version.
- **Cannot Enable fly zone in simulator for Mavic Pro:** The setter and getter of `FlyZoneEnabled` in `DJISimulator` are not functional for Mavic Pro.
 - **Workaround:** This will be addressed in a future firmware version.
- **Cannot disable C1 button binding for Mavic Pro:** The setter and getter of `RCC1ButtonBindingEnabled` in `DJIRemoteController` are not functional for Mavic Pro (the C1 button binding is always enabled).
 - **Workaround:** This will be addressed in a future firmware version.

Bug Fixes

- **Serial Number not always unique:** In previous versions of the SDK, the component serial number returned (e.g. Flight Controller) was a partial hash of the actual serial number, and therefore not always unique. The serial number returned by `getSerialNumberWithCompletion:` is no longer a hash and should now always be unique. An additional and deprecated interface `getLegacySerialNumberWithCompletion:` has been added to v3.4 that returns the same serial number as prior versions for compatibility.

iOS SDK 3.3 Release Notes

Release Date

2016.09.05

Highlights

Mobile SDK 3.3 is now available on our developer website. More information can be obtained from the [Github page](#).

- **SDK Logs:** SDK Logs collects flight related communication between the application and the SDK. These logs can be used by developers and DJI to better diagnose flight failures, and determine if a product warranty claim is valid. This feature should make it easier for users to get service on products that are controlled with third party applications.
- **GEO system:** DJI's [Geospatial Environment Online \(GEO\)](#) provides DJI flyers with up-to-date guidance on areas where flight may be limited by regulation or raise safety concerns. The GEO system is accessible in Mobile SDK 3.3. Developers can use `DJIFlyZoneManager` to query the fly zone information and unlock some zones.
- **New product support:** DJI's latest product Osmo Mobile is supported in Mobile SDK 3.3. All features of Osmo Mobile are supported except ActiveTrack. Support has also been added for Zenmuse Z3, Osmo RAW (X5R Camera) and standalone A3 with Lightbridge 2.
- **New EULA and Developer Policy:** The [EULA](#) and [Developer Policy](#) are updated for this release.

Other New Features

- **New firmware support:** Support has been added for XT camera's latest firmware including the advanced radiometry capabilities.
- **Optical zoom:** Besides Zenmuse Z3 camera, optical zoom is also supported by X5/X5R camera when it is equipped with a zoom lens.
- **Non-DJI battery detection:** When a non-DJI intelligent battery is installed, SDK will prevent aircraft flight.
- **Flight controller state:** `flightTime` is added to `DJIFlightControllerCurrentState`, which returns the accumulated flight time.

- **Refactored internal implementation:** The internal SDK implementation of SDK has been completely refactored to make the SDK more extensible in the future, optimize wireless bandwidth usage and improve robustness. The external interfaces remain the same except the organization of header files has changed.
- **Documentation change:**
 - Several typos of the inline documentation are fixed.
 - Documentation of `resetGimbalWithCompletion:` in `DJIGimbal` is refined and is more descriptive.
- **Interface change:**
 - For component keys, the `key` suffix is removed. For example, `DJIBatteryComponentKey` becomes `DJIBatteryComponent`.
 - For gimbalCapability keys, the prefix of the dictionary key's variable name becomes `DJIGimbalParam` and the `DJIGimbalKey` prefix is removed from the string value.
 - For properties in `DJIBatteryWarningInformation`, the prefix `dischargeDueTo` is removed from the properties.
 - Property `numberOfCell` in `DJIBattery` is renamed to `numberOfCells`.
 - `DJICameraExposureParameters` becomes a struct. Delegate method `camera:didUpdateCurrentExposureValues:` is renamed to `camera:didUpdateCurrentExposureParameters:` for consistency.
 - Values in enum `DJILBAirLinkPIPPDisplayMode` are renamed to adapt to the dual encoding mode of Lightbridge 2.
 - Property `attitudeInDegrees` in `DJIGimbal` is deprecated because it is duplicated with the property in `DJIGimbalState`.
 - The deprecated values in `DJICameraDigitalFilter` are removed.

Supported Products

Products	<ul style="list-style-type: none"> * Matrice 600, RTK and Ronin MX * Phantom 4 * Phantom 3 Standard, Advanced, 4K & Professional * Inspire 1, Inspire 1 Pro & Inspire 1 RAW * Matrice 100 with X3, X5 & X5R * Osmo, Osmo Pro, Osmo RAW & Osmo+ * Osmo Mobile * Lightbridge 2 with A2 * Lightbridge 2 with standalone A3 * Focus * N1 Video Encoder
Cameras	<ul style="list-style-type: none"> * Phantom 4 Camera * Phantom 3 Cameras * Zenmuse X3, X5, X5R, Z3 * Zenmuse XT

Supported Firmwares

- Matrice 600, RTK and Ronin MX: 1.0.0.39
- Phantom 4: 1.2.503
- Zenmuse XT: 1.20.0.0
- Zenmuse Z3: 1.9.1.30
- Inspire 1: 1.9.1.30
- Inspire 1 Pro (X5 camera): 1.9.1.30
- Inspire 1 RAW (X5R camera): 1.9.1.30
- Osmo: 1.6.2.10
- Osmo Pro (X5 camera): 1.3.0.40
- Osmo RAW (X5R camera): 1.3.0.40
- Osmo+: 1.0.0.20
- Osmo Mobile: 1.1.0.30
- Phantom 3 Professional & Advanced: 1.9.60

- Phantom 3 Standard: 1.6.80
- Phantom 3 4K: 1.5.40
- Matrice 100: 1.3.1.0
- Lightbridge 2: 1.1.40
- A3: 1.3.0.0

Bug Fixes

- **Aircraft does not immediately RTH in Virtual Stick Mode when connection is lost:** In Virtual Stick mode, when RTH is enabled as a fail safe for connection loss, the aircraft would wait till the battery dropped to <15% before returning home. With the latest Phantom 3 and Inspire 1 firmware release, the aircraft will now return home immediately after the connection is lost.
- **Osmo returns wrong isSmartBattery value:** `isSmartBattery` of `DJIBattery` returns `NO`. It is fixed in 3.3 and now `isSmartBattery` will return `YES` for Osmo series.
- **Playback download feature is not supported by Matrice 600:**
`downloadSelectedFilesWithPreparation:process:fileCompletion:overallCompletion:` will return not supported in M600 with X3, X5 and X5Raw. It is fixed in 3.3.
- **Follow-me mission is not supported by Matrice 600:** It is supported in 3.3.
- **Wrong valid range for fineTuneGimbalRollInDegrees:** valid range for `fineTuneGimbalRollInDegrees:withCompletion:` in `DJIGimbal` now is [-2, 2].

iOS SDK 3.2 Release Notes

Release Date

2016.04.25

Highlights

Mobile SDK 3.2 is now available on our developer website. More information can be obtained from the [Github page](#).

- **New product support:** DJI's latest products Matrice 600, RTK and Ronin MX are supported in Mobile SDK 3.2. Support has also been added for Osmo Pro (X5 camera) and Matrice 100 with X5 and X5R cameras.

Other New Features

- **DJIDiagnostics:** SDK 3.2 provides a new class `DJIDiagnostics`, which can catch and present detailed issues with the product if they arise (for example, if the IMU is calibrating while the aircraft is moving, this will cause IMU calibration fail). Solutions for errors are also provided to help users resolve the problems.
- **Camera:** New functions are added to `DJICamera`.
 - Setter and getter to enable saving a video caption file which includes product location and time.
 - Setter and getter for digital zoom.
 - A new method is added to `DJIPlaybackManager` to cancel the file downloading process.
 - New interfaces to control Osmo's microphone gain and cooling fan state to improve the recording quality.
 - A new digital filter `DJICameraDigitalFilterPortrait` for Osmo.
- **Flight Controller:** New functions are added to `DJIFlightController`.
 - `DJISimulator` is added in SDK 3.2 for application testing convenience. Using `DJISimulator`, aircraft simulation mode can be turned on through the SDK without needing to connect to a PC.
 - Switch to enable Virtual Stick Advanced Mode. Advanced mode enables wind compensation

when the aircraft is hovering. For Phantom 4, advanced mode enables collision avoidance in virtual stick mode.

- Setter and getter for Failsafe behavior when the remote controller and aircraft wireless link is lost.
- Setter and getter to turn on/off the LEDs in the front arms of Phantom series.
- **Gimbal:** Interfaces in `DJIGimbal` are refactored to cater for the diversity of gimbals in all DJI products.
 - `DJIGimbalConstraints` is replaced by `gimbalCapability`, a dictionary in `DJIGimbal`. Gimbal features are defined in dictionary keys with the `DJIGimbalKey` prefix. The key values can be used to check if the connected gimbal supports the feature and what its valid range is.
 - Interfaces related to Osmo's "Joystick" are replaced by "Controller" to better describe all DJI gimbal's physical controllers with some interfaces being expanded to additional products.
 - Setter and getter to extend the gimbal's pitch range for the Phantom series of aircraft.
 - Interface to restore the gimbal settings to factory settings.
 - Setter and getter for an Osmo physical controller mode that can limit controller response to just one axis.
- **Mission Manager:** `DJIAircraftYawStep` is a new type of custom mission step. This can be used to rotate the aircraft easily with a specific angle and speed during a custom mission.

Supported Products

Products	<ul style="list-style-type: none">* Matrice 600, RTK and Ronin MX* Phantom 4* Phantom 3 Standard, Advanced, 4K & Professional* Inspire 1, Inspire 1 Pro & Inspire 1 RAW* Matrice 100 with X3, X5 & X5R* Osmo & Osmo Pro* Lightbridge 2 with A2* Focus* N1 Video Encoder
Cameras	<ul style="list-style-type: none">* Phantom 4 Camera* Phantom 3 Cameras* Zenmuse X3, X5, X5R* Zenmuse XT

Supported Firmwares

- Matrice 600, RTK and Ronin MX: The upcoming firmware version
- Phantom 4: 1.1.301
- Zenmuse XT: 1.14.1.50
- Inspire 1: 1.8.1.00
- Inspire 1 Pro (X5 camera): 1.8.1.00
- Inspire 1 RAW (X5R camera): 1.8.1.20
- Osmo: 1.6.2.10
- Osmo Pro (X5 camera): The upcoming firmware version
- Phantom 3 Professional & Advanced: 1.8.80
- Phantom 3 Standard: 1.5.70
- Phantom 3 4K: 1.4.30
- Matrice 100: 1.2.0.90
- Lightbridge 2: 1.1.10

Known Issues

- **Playback download feature is not supported by Matrice 600:**
`downloadSelectedFilesWithPreparation:process:fileCompletion:overallCompletion:` will return not supported in M600 with X3, X5 and X5Raw.
- **Virtual Stick Advanced Mode does not work in flight controller firmware versions 02.04.xx.xx and prior:** Virtual Stick Advanced Mode is only available for flight controller firmware version 03.01.xx.xx and if `VirtualStickAdvancedModeEnabled` is enabled.
- **Waypoint index error if the last waypoint has an action:** For Matrice 100 with flight controller firmware 03.01.xx.xx, the `targetWaypointIndex` will be 0 if an action is executed in the last waypoint.
 - **Workaround:** Use the total number of the waypoints in the mission and current waypoint index to detect the wrong `targetWaypointIndex`.
- **camera:didGenerateNewMediaFile: does not work immediately after SD card formatting:** After

formatting the SD card, the delegate will not receive `camera:didGenerateNewMediaFile:` when the first video is recorded. The interface works properly afterwards.

- **Workaround:** This will be addressed in the future firmware versions.

© 2016 DJI. All Rights Reserved.

iOS SDK 3.1.1 Release Notes

Release Date

2016.03.23

Bug Fixes

- **Property `isRetreatEnabled` of `DJIActiveTrackMission` does not work:** It is fixed in 3.1.1.
- **Property `isHorizontalObstacleAvoidanceEnabled` of `DJITapFlyMission` does not work:** It is fixed in 3.1.1.

© 2016 DJI. All Rights Reserved.



iOS SDK 3.1 Release Notes

Release Date

2016.03.15

Highlights

Mobile SDK 3.1 is now available on our developer website. More information can be obtained from the [Github page](#).

- **New product support:** DJI's latest products Phantom 4, and Zenmuse XT are now available in Mobile SDK 3.1. All new features of Phantom 4, including TapFly, ActiveTrack, Obstacle Avoidance and Sport Mode are supported by Mobile SDK 3.1. Support has also been added for the N1 Video Encoder.
- **New firmware support:** Mobile SDK 3.1 supports the upcoming firmware versions of Osmo and the latest firmware of Matrice 100 and Inspire 1 Pro. Mobile SDK 3.1 is also compatible with the current firmware versions for these products. Refer to Supported Firmwares section below.

Other New Features

- Two new missions, `DJITapFlyMission` and `DJIActiveTrackMission`, are added to provide the visionary intelligence of Phantom 4. Developers could easily create these missions using mission manager.
- A new class `DJIIntelligentFlightAssistant` is added to provide state information about the Phantom 4's new vision system which allows for obstacle detection and avoidance.
- New interfaces for thermal camera settings are added into `DJICamera`.
- New methods are added in `DJIRemoteController` to disable or enable the binding between the C1 button and DJI GO. After disabling the binding, pressing the C1 button on the remote controller will not launch DJI GO.

Supported Products

Products	<ul style="list-style-type: none"> * Phantom 4 * Phantom 3 Standard, Advanced, 4K & Professional * Inspire 1, Inspire 1 Pro & Inspire 1 RAW * Matrice 100 * Osmo with X3 * Lightbridge 2 with A2 * Focus * N1 Video Encoder
Cameras	<ul style="list-style-type: none"> * Phantom 4 Camera * Phantom 3 Cameras * Zenmuse X3, X5, X5R * Zenmuse XT

Supported Firmwares

- Phantom 4: 1.0.170 and later
- Zenmuse XT: 1.8.0.90
- Inspire 1: 1.6.00.40
- Inspire 1 Pro (X5 camera): 1.4.0.70
- Inspire 1 RAW (X5R camera): 1.8.0.50
- Osmo: 1.4.1.80 and the upcoming firmware version
- Phantom 3 Professional & Advanced: 1.6.40
- Phantom 3 Standard: 1.3.50
- Phantom 3 4K: 1.02.10
- Matrice 100: 1.2.0.80
- Lightbridge 2: 1.0.10

Bug Fixes

- **getFirmwarePackageVersionWithCompletion in DJIBaseProduct takes too long:** When the mobile device was connected to the remote controller without the aircraft powered on, `getFirmwarePackageVersionWithCompletion:` would take more than 30 seconds to return the firmware version of the remote controller. In 3.1 this method will now return an error within

seconds. `getFirmwareVersionWithCompletion:` of `DJIRemoteController` can be used to get the firmware version of the remote controller.

- **The sign of velocityZ in DJIFlightControllerCurrentState is not consistent with Android SDK:**
The property `velocityZ` in `DJIFlightControllerCurrentState` was not consistent with Android. In 3.1 the velocity is now using the N-E-D (North-East-Down) coordinate system. The Z axis velocity is positive when the aircraft's altitude is decreasing.
- **Improve setHomeLocation:withCompletion:** Previously, home point can only be set around the initial take-off location, current aircraft's location or current remote controller's location. In 3.1, home point can also be set around the mobile device location.

Known Issues

- **Incorrect DJIGimbalState for Phantom 3 series:** `isPitchAtStop` and `isYawAtStop` are always 0 for Phantom 3 series. This will be addressed in the next Phantom 3 firmware release.
- **The connectivity of DJIBaseProduct is incorrect when using the DJI Bridge App:** When using the simulator with the DJI Bridge App and the product becomes disconnected, the property `connected` remains `YES` and the delegate method `product:connectivityChanged:` in `DJIBaseProductDelegate` doesn't callback.
 - **workaround:** Use DJI Remote Logger instead of DJI Bridge App when testing the connectivity change of products.

iOS SDK 3.0.1 Release Notes

Release date

2016.02.04

Highlights

Mobile SDK 3.0.1 is now available on our developer website. More information can be obtained from [Github page](#).

- **New product support:** The upcoming Zenmuse X5R is supported by Mobile SDK 3.0.1. The X5R functionality is the same as X5, except an additional interface to access SSD state is present.
- **New firmware support:** Mobile SDK 3.0.1 supports the upcoming firmware versions for Osmo and Matrice 100. Mobile SDK 3.0.1 is also compatible with the current firmware versions for these two products. Refer to Supported Firmwares section below.

Other New Features

- A new callback `camera:didGenerateNewMediaFile:` is added to provide information of a generated media file, including the name, date created and the file size.
- A new class `DJIAuxLink` is added to give signal quality of the remote controller to aircraft control link for aircraft products that use a WiFi video link (Phantom 3 Standard, Phantom 3 4k).
- A new method `getDisplayName` is added to `DJICamera` class to give the currently connected camera string.
- A new callback `camera:didUpdateCurrentExposureValues:` now updates camera exposure values whenever they are changed. In automatic exposure modes, this gives the aperture, shutter and ISO values the camera is selecting, while in manual exposure mode, this gives the exposure compensation required for correct exposure.

Interface Changes

- The property `isMissionReadyToExecute` in `DJIMissionManager` is deprecated. Developers should check the status based on the result returned by the completion block of `prepareMission:withProgress:withCompletion:`.

- All the possible `model` results returned by `DJIBaseProduct` are listed publicly in `DJIAircraft.h` and `DJIHandheld.h` header files.
- Method `getSDCardInfoWithCompletion:` in `DJICamera` is deprecated. Please use `camera:didUpdateSDCardState:` in `DJICameraDelegate` to receive the SD card state.

For more information please refer to the diff file.

Supported Products

Products	<ul style="list-style-type: none">* Phantom 3 Standard, Advanced, 4K & Professional* Inspire 1, Inspire 1 Pro & Inspire 1 RAW* Matrice 100* Osmo with X3* Lightbridge 2 with A2* Focus
Cameras	<ul style="list-style-type: none">* Phantom 3 Cameras* Zenmuse X3, X5, X5R

Supported Firmwares

- Inspire 1: 1.6.00.40
- Inspire 1 Pro (X5 camera): 1.3.0.60
- Inspire 1 RAW (X5R camera): Upcoming
- Osmo: 1.4.1.80 and the upcoming firmware version
- Phantom 3 Professional & Advanced: 1.6.40
- Phantom 3 Standard: 1.3.50
- Phantom 3 4K: 1.02.10
- Matrice 100: 1.1.0.10 and the upcoming firmware version
- Lightbridge 2: 1.0.10

Bug Fixes

- **DJIMissionManager returns an error with a good wireless connection after a prior failure:** When

mission preparation failed due to a poor wireless link, there were some instances where an error ("There was an error connecting to the SDK") was still given after the wireless connection improved. This is fixed in 3.0.1.

- **No error when connection is broken during downloading:** If the connection was broken when using `DJIPlaybackManager` to download files from the SD card, a completion block would not previously be called. It is now called.
- **No live video data when application restarts after exiting during playback download:** If the application was exited while using `DJIPlaybackManager` to download photos or videos, then on restart no live video data was available. 3.0.1 corrects this.
- **No error returned by DJIMissionManager when battery is too low to start:** If the battery is too low, the aircraft will not initiate waypoint, hotpoint or follow-me missions. 3.0.1 now returns an error to inform why the mission was not started.
- **Incorrect DJIWaypointMissionStatus:** `DJIWaypointMissionStatus` did not reset to 0 for each loop in looping waypoint missions (`repeatTimes` > 1). It is fixed in 3.0.1.
- **Incorrect file size of panorama photos:** Photos retrieved by `DJIMediaManager` after a panorama mission returned a zero file size. This will be fixed with 3.0.1 and the upcoming Osmo firmware.
- **Cannot set 2.7K resolution:** When setting the resolution to 2704x1520, an error "The parameters are invalid. Please review and submit the request." was previously returned. It is fixed in 3.0.1.

Known Issues

- **For Zenmuse X5 and X5R, didGenerateNewMediaFile method returns incorrect information:** The firmware for Zenmuse X5 and X5R does not fully support this callback in that the information returned by the properties `fileName`, `mediaType` and `timeCreated` of `DJIMedia` might not be accurate.
- **VideoPreviewer Crash:** The VideoPreviewer in the sample code may crash the sample app when using the upcoming Osmo firmware with slow-motion enabled and switching between shoot photo mode and record video mode.
- **Aircraft does not immediately RTH in Virtual Stick Mode when connection is lost:** When Virtual Stick Mode is active, and return-to-home (RTH) is enabled (for when the connection breaks), the aircraft will wait till the battery is <15% before initiating RTH (assuming the connection isn't re-established before then). This will be addressed in the next Phantom 3/Inspire 1 firmware release.
- **Cannot get serial number for Battery TB48:** When using the TB48 battery with Inspire 1, the `DJIBattery` serial number cannot be returned.

- **Incorrect push data for waypoint mission:** When the `finishedAction` property of the executing waypoint mission is `DJIWaypointMissionFinishedGoFirstWaypoint`, the `targetWaypointIndex` in `DJIWaypointMissionStatus` is incorrect.

iOS SDK 3.0 Release Note

Highlights

After listening to feedback from the developers, Mobile SDK 3.0 has been re-architected and refactored from the ground up for ease of use and increased functionality. More information can be obtained from [Github page](#).

- **Simplified Object Model:** Mobile SDK 3.0 has halved the number of classes from Mobile SDK 2.4.x while improving the functionality. It is designed with a scalable object model architecture that supports current and future DJI products.
- **Mission Manager and Custom Missions:** Mobile SDK 3.0 groups all higher order missions into MissionManager for easy access. In addition, a new CustomMission feature that allows developers to combine higher order missions into their own "*Custom Mission*" with just a few lines of code.
- **Removed Developer Levels:** All developers are now given full access to use flight control commands which were available only to Level 2 developers in Mobile SDK 2.4.x.
- **Improved iOS debugging through Bridge App & Remote Logger:** Bridge App connects DJI products to your computer through a wireless network to allow debugging and profiling of the application in lab environment. Remote logger helps debugging in the field environments.
- **WARNING Limited Backwards Compatibility:** Although all the functionality of SDK 2.4.x is supported in SDK 3.0, due to the refactoring, this version is not drop-in compatible with SDK 2.4.x.

Other New Features

- Support for Phantom 3 Standard, Phantom 3 4k, Inspire 1 Pro, Osmo, Lightbridge 2 + A2, Focus.
- Full Swift compatibility.

Supported Products

Products	<ul style="list-style-type: none"> * Phantom 3 Standard, Advanced, 4K & Professional * Inspire 1 & Inspire 1 Pro * Matrice 100 * Osmo * Lightbridge 2 with A2 * Focus
Cameras	<ul style="list-style-type: none"> * Phantom 3 Cameras * Zenmuse X3, X5

Note:

- Support for Phantom 2 Vision+ has been removed in Mobile SDK 3.0

Supported Firmwares

- Inspire 1: 1.6.00.40
- Inspire 1 Pro (X5 camera): 1.3.0.60
- Osmo: 1.4.1.80
- Phantom 3 Professional & Advanced: 1.6.40
- Phantom 3 Standard: 1.3.50
- Phantom 3 4K: TBD
- Matrice 100: 1.0.0.03
- Lightbridge 2: 1.0.10

Known Issues

- **Issue 1: DJIMissionManager does not work with poor connection** Once the connection between the remote controller and the aircraft is poor, user may fail to prepare a mission. Even the connection quality improves afterwards, DJIMissionManager may still return error with description “There was an error connecting to the SDK”.
 - **Workaround:** Restart the application when encounters this issue.
- **Issue 2: No error for broken connection during downloading** User can use DJIPlaybackManager to download files in SD card. During the downloading process, if the connection is broken, the completion block would not be called.

- **Workaround:** User can use a timer and set a timeout. If no blocks are called during the time interval, user can determine that the connection is broken.
- **Issue 3: If the application exits during downloading, no video data is received when the application is re-opened** If the application is terminated when there are files downloading with DJIPlaybackManager, no video data will be received even the application is opened again.
 - **Workaround:** User can check the state of DJICamera and DJIPlaybackManager when the application is open. If the camera mode is DJICameraModePlayback and DJIPlaybackManager is in DJICameraPlaybackModeDownload, then user can reset the camera mode to resolve the problem.
- **Issue 4: No error returned by DJIMissionManager when the battery is low** When the battery is low, for safety reason, waypoint mission, hotpoint mission and follow-me mission are not allowed. However, no error is returned when user try to start the mission
 - **Workaround:** User should check the battery status before starting a mission.
- **Issue 5: Incorrect DJIWaypointMissionStatus** User can start a waypoint mission with repeatTimes more than 1. After the mission is finished for the first time, the targetWaypointIndex in DJIWaypointMissionStatus will not reset to 0. For example, there are four waypoints in the mission. The targetWaypointIndex will be 4, when the mission starts execution for the second time.
 - **Workaround:** User can modulo targetWaypointIndex with the total number of waypoints in the mission.
- **Issue 6: Incorrect file size of panorama photos** For Osmo, after executing a panorama mission, user can get the photos taken during the mission by DJIMediaManager. However, the file size of the photos is always zero. It is a firmware issue and it can be fixed in the future firmware version.
 - **Workaround:** User can still get the preview for the photos taken in Panorama mission.