INTEL FALCON 8+
INTEL DRONE GROUP

Release Notes
2 August 2017

VERSION HISTORY/REVISION HISTORY

These are the main software releases that have been made available for Falcon 8+:

<table>
<thead>
<tr>
<th>Date</th>
<th>Revision</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>July 5, 2017</td>
<td>IF8P_firmware_v1.0.ZIP</td>
<td>Updates to improve the stability and performance of the product.</td>
</tr>
</tbody>
</table>

RELEASE CONTENT

A release contains several files that need to be applied to different parts of the system. Refer to the documentation about the detailed upgrade process.

Table 1-1 Revision numbers of components of the software release.

<table>
<thead>
<tr>
<th>Component</th>
<th>File</th>
<th>Revision</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intel Falcon 8+ UAV</td>
<td>TRINITY.ATF</td>
<td>0.95</td>
</tr>
<tr>
<td>Intel Cockpit Controller</td>
<td>COCKPIT.ATF</td>
<td>0.95</td>
</tr>
<tr>
<td>Intel Cockpit Control (tablet software)</td>
<td>CockpitControlInstaller_v1.1.10.exe</td>
<td>1.1.10</td>
</tr>
</tbody>
</table>
INTENDED AUDIENCE

All customers of the Falcon 8+ flight system.

CUSTOMER SUPPORT

For technical support, including answers to questions not addressed in this product, visit the technical support forum, FAQs, and other support information at: https://www.intel.com/content/www/us/en/support/drones/commercial-drones/000023691.html

NOTE: If your distributor provides technical support for this product, please contact them for support rather than Intel.

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1. INTRODUCTION

This document provides information about the updated software for your Falcon 8+ flight system.

To learn more about this product, see:

- New features listed in the New in this Release section below, or in the help.
- Reference documentation, including documentation about how to install the software is listed in the Related Documentation section below.

2. NEW IN THIS RELEASE

2.1 NEW FEATURES

No new features have been added in this release.

2.2 CHANGES TO EXISTING FEATURES

- **Video Link**
  The video link has been made more robust against high temperatures. This fixes issues where users have seen temperature warnings from the video converter as well as pixelization and limited range when operating the device in direct sunlight and ambient temperatures >30°C.

- **Command and Control Link**
  The command and control link has been made more robust against high temperatures and operation at the edge of the range limit. This addresses problems where users operating the device in direct sunlight and at ambient temperatures >30°C have occasionally seen the device entering emergency mode.

2.3 UNSUPPORTED OR DISCONTINUED FEATURES

None.

3. FIXED ISSUES

Release Notes
• **Video Link**
  The video link has been made more robust against high temperatures. This fixes issues where users have seen temperature warnings from the video converter as well as pixelization and limited range when operating the device in direct sunlight and ambient temperatures >30°C. (FF-266, FF-171)

• **Command and Control Link**
  The command and control link has been made more robust against high temperatures and operation at the edge of the range limit. This addresses problems where users operating the device in direct sunlight and at ambient temperatures >30°C have occasionally seen the device entering emergency mode.

• **Mission Upload & Execution**
  When aborting a mission in flight and uploading a new mission without landing and power-cycling the device, the Falcon sometimes started the mission not at the first waypoint but at an arbitrary location in the middle of the waypoint. This was typically interpreted as fly-away. The drone will now properly accept mission changes during flight. (FF-105)

• **COI Missions Reported as “paused” even though mission execution continued**
  While flying a COI mission that was planned in AscTec Navigator, the tablet software sometimes showed the mission status as “paused”, even though the Falcon continued to fly the mission and executed normally until the end. The mission status will now always be shown correctly. (FF-288)

• **“IMUx: Data Corrupted” appearing as error message on the LCD screen**
  In some rare instances (typically after performing a payload calibration, but not limited to these), an error message “IMUx: Data Corrupted” was shown on the Cockpit LCD screen even though the Falcon continued to operate normally. The new release will not produce these errors anymore. (FF-170)

• **Proper detection of overheat situation**
  Sometimes, the Falcon would turn itself off when idle and on the ground due to an incorrect detection of an overheat situation. This issue has been fixed. Note that this error would not occur during flight. During flight, the system will always notify the pilot about the situation but never turn itself off. (FF-256)

### 4. KNOWN ISSUES

None.

### 5. RELATED DOCUMENTATION

Manuals that contain detailed information about performing software upgrades, operating the system and troubleshooting can be found at Intel's website in the support section:

6. SPECIAL CONSIDERATIONS DURING UPGRADE

This upgrade changes the video pipeline on the device. The video pipeline will only be reflashed after the first power-cycle. This means that in order to complete the upgrade, you first need to run through the full flash process, reboot the device and then let it sit idle for approximately 5 minutes to allow the second flash process to complete. This applies for both Cockpit and the Falcon drone. During this time, there will be no video link between both units. The video link should establish itself automatically when the upgrade process is complete. In case the video link does not come up automatically and 5 minutes have passed, power-cycle both Cockpit and Falcon, ensure both are connected (and that telemetry information is available) and wait until the pairing process for the video link is completed.

7. WHERE TO FIND THE RELEASE

All releases are published on Intel's support site. A quick link to this section is: http://www.intel.com/FalconDownloads

8. HARDWARE AND SOFTWARE COMPATIBILITY

The upgrade is compatible to all revisions of the Intel Falcon 8+ and the Intel Cockpit Control.

9. LEGAL INFORMATION

Please refer to the Intel-OBL-Mobile-Computing-Platform-Software-Limited-License.pdf, which is included in the download of the software.

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