



# Log Download Procedures EXT

LSP-6205

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# Introduction

Log downloads are important for both internal and external use because it ensures we capture the most important information about a system and its performance. Using the logs we are able to identify issues that have not occurred yet and prevent them. Similarly we are able to retrace the steps from an incident to identify what was the root cause of a problem. This document will give you guidance on how to collect all the logs from a particular flight from every component of the system.

Four of five of the available System logs are stored in the onboard computers in the Tether Kit (TK). One additional and very important log file is stored aboard the LiveSky air vehicle itself. When collecting logs for analysis it is important to collect all relevant logs.

## **Tether Kit Logs**

There are four (4) log sections stored in the TK. All of these may be downloaded through a web-interface by connecting a computer to the TK network. It is also possible to use the Hoverfly touch-screen Controller for this procedure.

If the computer (or Controller) is connected to the "Internal" Ethernet port on the TK, it should be configured to use a dynamic (DHCP) network address. The router in the TK will assign it an address on the internal 10.20.30.0/24 network. Open a web browser and navigate to <a href="http://10.20.30.200">http://10.20.30.200</a>. Enter the username and password if prompted. Unless otherwise changed the username and password is: admin

If the computer (or Controller) is connected to the "External" network port, then simply navigate to the IP address that has been assigned under DHCP to the TK on your network.

HFAccess Logs Settings Utilities About

Hoverfly Access

View Logs View Settings Utilities About





Once the computer or Controller is connected, a web page entitled "Hoverfly Access" will be displayed. This web page has clickable options that include View Logs", "View Settings", "Utilities", and "About" which looks like the nearby Figure. Click on the link "View Logs" to view the log files.

HFAccess Logs Settings Utilities About

Log Access

Search Logs

All Logs

FMS Logs

**BGU Logs** 

**BGU Server Logs** 

**Hub Logs** 

A new screen will appear after "Log File Access".

From this screen, access is provided to the four (4) different sections of TK logs; the BGU log, the BGU Server log, the FMS log, and the HUB log. Simply click on the link for each type of log to have access to the directory structure for that Log File. Once inside of the directory structure, Log Files from the TK can then be downloaded, or deleted.

All logs are generated each time the System is powered on. These logs are labelled with a timestamp and can be sorted in time order to make it easy to find the desired log from any flight. Those screens look like this:





The timestamp format is

YYYYMMDDTHHMMSS, thus a log with the title:

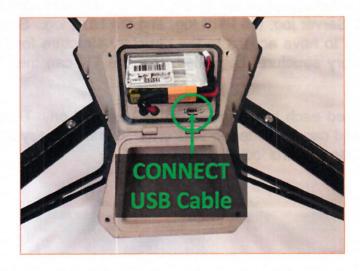
"BguDataLog\_20190213T174523" is from 02/13/2019 at 5:45:23pm.

Keep in mind that there are several logs located under the HUB log section of the Log Access. There you will find a BARO log, HUB Event log, and HUB Data log. All of these logs are critical for diagnosing problems and should be collected in the event of an incident.

### **Air Vehicle Logs**

The LiveSky air vehicle log is obtained by using a micro-USB cable connected between the LiveSky and any computer running the Ardupilot "Mission Planner" software (which can be found at: <a href="http://ardupilot.org/planner/">http://ardupilot.org/planner/</a>).

The procedure for extracting the logs is simple. After you have obtained and installed the software. Plug the micro-USB cable into the port inside the LiveSky Safety Landing Battery compartment. Connect the cable to your computer and start the ArduPilot software.









WHEN CONNECTED, MISSION PLANNER MAY ASK ABOUT UPGRADING FIRMWARE. DO NOT UPGRADE FIRMWARE!!

LIVESKY USES SPECIAL SOFTWARE, DO NOT UPGRADE FIRMWARE

On the center left of the screen, below the artificial horizon, there are a series of tabs. Select "DataFlash Logs".

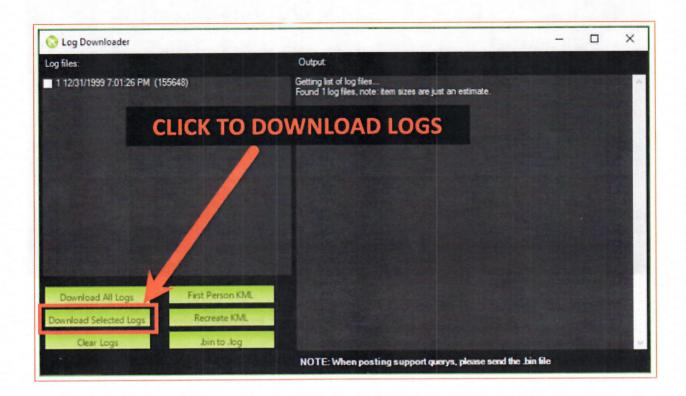


Then click the button "Download DataFlash Log Via Mavlink".





This will bring up a window showing all the logs on the craft. The log files are dated. Select the appropriate log(s) and click "Download Selected Logs".



This will download the selected logs to the computer in the Mission Planner folder typically located under Documents. These logs will have a .bin extension and may be large depending on the duration of the flight. The most important log to save will be the .bin file.

#### DO NOT CLEAR LOGS! LOGS CONTAIN IMPORTANT DATA.

In some cases, and depending on the organizational security policy, it may be necessary to clear the logs. However, the logs must be retained for warranty and service coverage. Clearing the logs will VOID THE WARRANTY.

IF YOU MUST CLEAR LOGS, DOWNLOAD THE LOGS FIRST AND RETAIN FOR WARRANTY AND SERVICE PURPOSES