UAV (Drone) Forensics Certification Workshop

Course Overview

This one-day intermediate level workshop will equip you with the practical skills and competencies required to identify and perform analysis of data from various sources of storage media recovered from Unmanned Aircraft Systems (UAS), also known as Drones, including their associated control devices in line with approved best practices.

Using leading research and development from Spyder Forensics, this course will introduce you to the world of UAV's and discussion in best practices to conduct a forensically sound extraction and analysis of UAS data for use as evidence or intelligence gathering following an incident involving a UAV. Attendees will learn how data can be collected from within the aircraft using non-destructive processes utilizing industry-standard tools to create forensic collections of storage media. This forensic collection will include flight logs, aircraft data, photos, and video files without the need to disassemble the aircraft or controller.

Once data has been acquired, attendees will master techniques on how to analyze the flight logs and user data using software designed exclusively to work with these types of structures. Attendees will also gain knowledge on workflows to connect data between the drone application and the flight data recovered from the aircraft.

All software used in class can be applied in a DFIR lab free of charge and without the need to purchase additional applications to conduct a Drone examination.

Primary Learning Objectives

- Learn all aspects of the sUAS eco system
- Learn of best practices in the collection of sUAS data
- Recognize types of data available from drones, their linked devices and third-party sources.
- Perform analysis of data from the Aircraft, controlling application and external media.
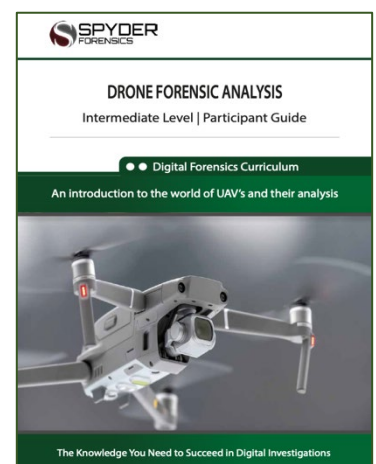
Course Type
Specialized

Course Length
1-day Workshop

Course Code
UAV Cert. Workshop

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DRONE FORENSIC ANALYSIS

Intermediate Level | Participant Guide

● ● Digital Forensics Curriculum

An introduction to the world of UAV's and their analysis

The Knowledge You Need to Succeed in Digital Investigations

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Learning Module Outlines

- Introduction to UAV Forensics
    - Introduction to sUAS
    - Discussion on the criminal use of UAV's
    - Drone adaptation
    - Capacity and Capability of drones
    - Linked devices – controller considerations
    - Understanding of how flight logs are created and updated
        - Aircraft power on flowchart.

- Components of sUAS
    - Components and features of small unmanned aircraft systems (sUAS)
    - Introduction to controller options
        - Mobile and Tablet Devices
        - Bespoke flight controllers
        - Integrated displays
        - FPV controllers
    - Autonomous flights
        - Return-to-home feature
        - WiFi controls
        - Signal interception.

- Extraction techniques
    - Discussion on the extraction of data from the aircraft
    - Discussion on the Extraction of data from mobile \ tablet device
    - Disassembling techniques
        - Arguments for and against
    - Automated tool collections

- Interpretation of data
    - Techniques in using opensource and commercial forensic tools to review the evidence
        - Interpretation of data contained on the UAV
            - Extracting registered user information
            - Identifying Aircraft details
            - Flight log analysis techniques
        - Interpretation of data from portable devices
            - Default folder structures of the controlling app from an Android and iOS device
            - Synchronized logs vs. local logs
            - Media file examination (geolocations and dates & times)
            - Workflows in combining offline files for further analysis
    - Techniques in the interpretation additional data on other devices.

- Final assessment certification exam

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