

ADF - Advanced Drone Forensics

INTERMEDIATE LEVEL

Course Objectives

This three-day course will equip you with the practical skills and competencies required to identify and extract sources of data recoverable from drones and their associated control devices, in line with recognized best practice.

Prerequisites

This intermediate course is designed for an experienced Digital Forensic or eDiscovery practitioner with a solid understanding of the Microsoft Windows operating system function.

To gain the maximum benefit from this course you should meet or exceed the following requirements:

- Read and understand the English language
- Have attended intermediate to advanced digital forensic training
- Have at least 6 months experience conducting digital forensic examinations
- Be familiar with the Microsoft Windows environment and data recovery concepts

Learning Objectives

Introduction to Unmanned Aerial Vehicle (UAV) Forensics

- Introduction to drones
- Criminal use of drones
- Manufacturers
- Attack vectors - risks to public safety
- Drone adaptation
- Capacity / capability of drones
- Health and safety - drone handling and seizure
- Health and safety - LiPo batteries
- Linked devices - controller considerations
- Digital vs physical evidence
- Packaging / storage and continuity

Extraction Techniques

- Extraction and interpretation of data contained on the UAV
- Extraction and interpretation of data from portable devices
- Extraction of controller data
- Basic analysis of drone application data

Advanced Extraction and Analysis

- Flight recorder “black box”
- Examination process
- Tear down of drone
- Controller and APP considerations
- Conversion of extracted files
- Analysis of key data artifacts
- Simplification of data - graphical representation
- Mapping of flight paths

Interpretation of Data

- Using open source and commercial forensic tools to review data
- Techniques in the interpretation of data

Presentation of Evidence In a Court Acceptable Manner

- Discussion on courtroom preparation and presentation

Report Writing

- Overview of UAV report considerations

Final Assessment

- Student knowledge assessment

Course Outline

Each attendee receives a student manual, lab exercises and other class related material, drone and other hardware. Students will have the ability to learn how to fly a UAV and collect data from the handset and drone.