



Welcome to this custom Oxygen Forensic® training course!

This five-day instructor-led training event will be held at the International Association of Computer Investigative Specialists (IACIS) 2020 training event in Orlando, FL – USA. It is geared toward students that have a working familiarity with mobile device extraction and analysis and focuses on the analytic analysis and reporting capabilities of the **Oxygen Forensic® Detective 12+**.

Oxygen Forensic® Detective is the flagship technology of Oxygen Forensics and a world-class suite of analytic tools that allow an investigator to ingest mobile device data from all industry standard extraction formats into a database architecture for single device analysis or multi-device analytics. The recent implementation of the x64 architecture of JetEngine elevates Oxygen Forensic® Detective to an unparalleled level of optimization, efficiency and analysis.

Students will extract several handsets, import multiple extraction formats of Android, Apple and other data types and learn to use the suite of technology to develop workflows that will enable them to return to their environments and immediately apply new ideas.

In addition, students will leave this course with an Oxygen Forensics Learning Management System (LMS) account and in-depth preparation for the new Oxygen Forensic® Detective certification process based on the new version 12!

Additional in-depth training available for Oxygen Forensic® Detective includes:

- Drone Analysis (one-day, instructor-led)
- Cloud Extraction (one-day, instructor-led)
- Passware Attacks (one-day, instructor-led)
- Call Detail Record Analysis (one-day, instructor-led)

# Course Modules

## Install and Support

This module educates end-users about their customer experience with Oxygen Forensics while learning to install the latest Oxygen Forensic® Detective (OFD) products and mobile device drivers. Students will learn how to access their unique customer portal and download any software components needed.

## Technology Overview

It is not uncommon for end-users to not be fully aware of the analysis power at their fingertips when using Oxygen Forensic® Detective. This module provides exposure to all common workflows and tools included with the suite of technology that is the Oxygen Forensic® Detective, including device extraction and analytics.

## Configuration

Before using **OFD**, some initial conversation should be had regarding evidence storage, temporary workspace and machine capabilities. The **OFD 12** technology includes many user-configurable options not previously available. This module provides instruction around those options, so end-users obtain maximum optimization for their environment needs.

## Device Extraction

The top rung of the mobile forensic ladder is device extraction. Art, science, research, luck, star alignment and technology combine to present investigators and examiners with some of the most challenging of tasks when it comes to extracting data from handsets, tablets, drones and peripherals. In this module, students will learn about the major challenges faced with extraction, as well as “where to start” down the path of success when extraction is required. While not all inclusive (there is a five-day training course for that), this module arms the student with the ability to get productive as soon as they finish the course. Topics covered include iOS, Android and KaiOS device access and the differences in extraction type, including physical, filesystem and logical.



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## **Extraction Import**

The process of extracting | importing data is an integral part of the investigative workflow. In this module, students will import data from previously acquired devices and begin familiarizing themselves with the **OFD** interface and workflows that lead them directly to the most commonly sought-after investigation information.

## **Interface**

Once those initial workflows are locked in, the rest of the interface becomes a command console of investigation and analysis. Students will learn the framework of columns, views and data sources that provide intuitive views in to extracted device data.

## **Overview Information**

**OFD** provides the investigator with an immediate “heads-up” view of evidence information, owner information and accounts, extraction information, top-10 categories (apps, groups, users). All this information can be included in reporting, but prior to reports, this section can provide a well-rounded look at the device and its user(s).

## **General Sections**

**OFD** automatically sorts through most commonly sought-after information and organizes it into relevant sections. This organization includes normal feature-phone data such as calls, messages, media, contacts, etc. It also includes smart-phone relative data such as wireless connections, social interaction data, applications and more. This module empowers the investigator with an array of tools and viewers to assist in information discovery and documentation. General Sections include:

- Calls
- Applications
- Contacts
- Apple Notes
- Messages
- Wireless Connections
- OS Artifacts
- Accounts | Passwords
- WebKit Data
- Media (pictures | video | audio)



## Analytics

Today's investigation data can be complex, large and overall daunting when it comes to analysis and documentation of multiple devices, users and applications. OFD leads the industry in data analytics and this module educates users on the abilities at their fingertips. Mastery of OFD analytics will take your final work product places it's never been in terms of link analysis, geographic coordination, chronologic discovery and biometric and categoric recognition. Students will add the following technologies to their investigative arsenal:

- Timeline
- Social Graph
- Facial Categorization
- Image Categorization
- Multi-faceted Search
- Key Evidence Manager

## Tools

In concert with the analytic tool chest, OFD provides an additional layer of expert technologies to assist with data normalization, deep-dive data recovery, alternate platform data extraction, in-the-field data extraction, credential and token acquisition and so much more. Students will learn the following toolbox additions:

- Oxygen Forensic® Maps
- Oxygen Forensic® KeyScout
- Oxygen Forensic® OxyAgent
- Oxygen Forensic® Plist Viewer
- Oxygen Forensic® SQLite Viewer
- Oxygen Forensic® Cloud Extractor
- Oxygen Forensic® Call Data Expert



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## **Data Export**

This reporting wizard module demonstrates how to export data from a case into one of many output formats that can include graphics, hyperlinks and date | time filters. Reports can be modified to resemble corporate or agency logos and headers | footers while also being saved as templates for later use. The OFD report wizard specializes in reducing the unwanted noise data around items of importance. Specificity becomes key when data is organized with the report wizard's abilities.

## **OFD Viewer**

The OFD Viewer workflow allows the technical side of the team to cull through masses of data to return more case-relative data to the investigator for review. The Viewer platform removes functions not relative to review, enabling the investigator to focus on the task at hand while using this client independent of the original OFD.

## **Additional Technology**

This final module provides previews into alternate technologies that can assist with overt and possible covert investigations. End-users will learn how to configure OTG devices for credential recovery, in-the-field Android data collection, iTunes backup discovery and other application artifact collection. Password protected backups will be addressed, and workflows for drone data recovery and call detail records (cell tower data) will be introduced. *Use your powers for good* in this module!

## **Appendix A – Comprehensive Lab**

## **Appendix B – Comprehensive Review**

## **Appendix C – Mobile Forensic Resources**

The course concludes with a comprehensive oral and lab-based review that will also help prepare students for the OFD version 12 certification process.

Students leave this event with an account in the Oxygen Forensics Learning Management System, an 'On The Go' (OTG) USB device and several resources including many mobile forensic email lists and websites. Students will also learn how to submit feature requests and support tickets with the Oxygen Forensics Support team.

**Thank you for the interest in Oxygen Forensic® Detective training.**



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