# Oxygen Forensic® Detective

## Changes in version 17.1.0.131 (December 2024):

• General. Improved the software stability.

### Changes in version 17.1.0.121 (December 2024):

• Import. Fixed the application parsing issue that occurred when importing iTunes backups.

### Changes in version 17.1 (December 2024):

- Oxygen Forensic Device Extractor. Added automatic detection of connected devices.
- Oxygen Forensic Device Extractor. Added the ability to manually extract data via Android Agent.
- Oxygen Forensic Device Extractor. Added the ability to extract Slack data via Android Agent.
- Oxygen Forensic Device Extractor. Added the ability to extract Telegram scheduled messages via Android Agent.
- Oxygen Forensic Device Extractor. Added the ability to record sound while making a screen recording of device data.
- Oxygen Forensic Device Extractor. Extended the list of supported devices.
- Oxygen Forensic Device Extractor. Updated the ability to extract Firefox data via Android Agent.
- Oxygen Forensic Device Extractor. Updated the ability to extract Google Chrome data via Android Agent.
- Oxygen Forensic Device Extractor. Updated the ability to extract Zoom contacts via Android Agent.
- Oxygen Forensic Device Extractor. Updated the ability to extract Samsung Internet Browser data via Android Agent.
- Oxygen Forensic Cloud Extractor. Now iCloud Agent is built into iOS Agent in special mode.
- Oxygen Forensic Cloud Extractor. Updated the ability to authorize in Samsung Cloud Data.
- Oxygen Forensic Cloud Extractor. Updated the ability to authorize in Samsung Cloud Backup.
- Oxygen Forensic Cloud Extractor. Updated the ability to authorize in Samsung Secure Folder Backup.
- Oxygen Forensic Cloud Extractor. Updated the ability to authorize in Telegram and extract Telegram data.
- Oxygen Forensic Cloud Extractor. Updated the ability to authorize in Zoom.
- Oxygen Forensic Cloud Extractor. Updated the ability to authorize in Box.
- Oxygen Forensic Cloud Extractor. Updated the ability to authorize in Google services.
- Oxygen Forensic KeyDiver. Added the ability to create custom attack templates.
- Oxygen Forensic KeyDiver. When an encrypted Huawei HiSuite backup is imported into Oxygen Forensic® Detective, Oxygen Forensic KeyDiver is automatically opened for a passcode brute force.
- Oxygen Forensic KeyDiver. Added the attack settings window.
- Oxygen Forensic KeyDiver. Added the ability to brute force Windows OS system account passwords using NTLM hashes.
- Oxygen Forensic KeyDiver. Added the option to pause all attacks using the same hash and hash type if the active attack has brute forced the password.
- Oxygen Forensic KeyDiver. Added the ability to brute force passwords to decrypt containers and partitions protected with VeraCrypt.
- Oxygen Forensic KeyDiver. Now attacks are automatically grouped when they use the same hash and hash type or when a group of hashes for password brute forcing is imported from Oxygen Forensic® Detective or Oxygen Forensic KeyScout.
- Oxygen Forensic KeyScout. Added the ability to extract NTLM hashes from Windows.
- Oxygen Forensic KeyScout. Added the ability to search by hash sets.
- Oxygen Forensic KeyScout. Added the ability to extract passwords from Bitwarden from Windows, macOS and GNU/Linux.
- Oxygen Forensic KeyScout. Added the ability to extract NordPass data from Windows, macOS and GNU/Linux.
- Oxygen Forensic KeyScout. Added the ability to extract Brave Nightly data from Windows, macOS and GNU/Linux.
- Oxygen Forensic KeyScout. Added the ability to extract FrostWire data from Windows, macOS and GNU/Linux.
- Oxygen Forensic KeyScout. Added the ability to extract SSH keys from Windows.
- Oxygen Forensic KeyScout. Added the ability to extract 7-Zip data from Windows.
- Oxygen Forensic KeyScout. Added the ability to extract Flatpak data from GNU/Linux.
- Oxygen Forensic KeyScout. Added support for the new Search Index data storage format for Windows 11.
- Oxygen Forensic KeyScout. Updated the ability to extract Microsoft Outlook data from macOS.
- Oxygen Forensic KeyScout. Updated the ability to extract Discord data from Windows, macOS and GNU/Linux.
- Oxygen Forensic KeyScout. Updated the ability to extract Mozilla Thunderbird data from Windows, macOS and GNU/Linux.
- Malware. Added the ability to selectively scan files for malware.

- Malware. Updated SDK Avira used for scanning files for malware.
- Speech Recognition. Added an improved Large (turbo) speech recognition model and improved support for GPU.
- General. Added the ability to save hash set binary files in the Hash Set Manager.
- Import. Added the ability to import physical dumps of MTK-based devices with a simplified encryption algorithm (no TEE).
- Import. Added the ability to decrypt physical dumps of Samsung Galaxy A32 A325F and Samsung Galaxy A32 SM-A325F devices.
- Import. Added the ability to import and decrypt physical dumps of Oukitel WP10.
- Import. Added the ability to import and parse Android virtual device images in VHD and VHDX formats.
- Import. Added the ability to import and parse ArduPilot drone logs.
- Import. Added the ability to import and parse drone flight missions in AWM format.
- Import. Added the ability to import TikTok account data.
- Import. Added parsing of Google Voice data from Google Takeout.
- Import. Added free disk space check before import of .ofbx and .ofbr backups.
- Import. Updated support for MTK-based Android devices having TEE Kinibi.
- Maps. Added the ability to include map previews in the report.
- Export. Added the ability to exclude files marked with a specific tag from the report.
- Export. Added the ability to export video frames marked as Key evidence from the Files section.
- Applications. Added data parsing from over 890 new app versions. The total number of supported versions exceeds 49100.
- Applications. OS artifacts. Added parsing of Clipboard from Android devices.
- Applications. Web Browsers. Added data parsing from Brave Browser (Nightly) (1.73.60) from Android devices.
- Applications. Finance. Added data parsing from AirCash (5.31.0) from Apple iOS devices and from AirCash (5.31.0) from Android devices.
- Applications. Cryptocurrency. Added data parsing from Exodus (24.39.7) from Apple iOS devices and from Exodus (24.41.7) from Android devices.
- Applications. Web Browsers. Updated data parsing from web browsers based on the Blink engine from Apple iOS devices and from Android devices.
- Applications. Messengers. Updated data parsing from Viber (23.6.1) from Apple iOS devices and from Viber (23.9.1.0) from Android devices.
- Applications. Messengers. Updated data parsing from Threema (6.3.1) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from Instagram (356.0.0.41.101) from Android devices.

### Changes in version 17.0.0.282 (October 2024):

- Oxygen Forensic® Device Extractor. Added the ability to extract iPhone 16 and Apple iOS 18 devices via iTunes backup procedure.
- Oxygen Forensic® Device Extractor. Updated the ability to extract WhatsApp and WhatsApp Business data via Android Agent.
- Oxygen Forensic® Device Extractor. Fixed the issue when files with characters forbidden on Windows OS were not extracted to a .TAR archive from the /sdcard directory.
- Oxygen Forensic® KeyScout. Added the ability to automatically delete previously downloaded debugging symbols after memory analysis is complete.
- Oxygen Forensic® KeyScout. Added support for Windows 11 24H2.
- Oxygen Forensic® KeyScout. Updated the ability to decrypt messages extracted from WhatsApp Web used in Google Chrome, Microsoft Edge, Opera, Brave, Vivaldi from Windows, macOS and Linux.
- Speech Recognition. Added a warning message to inform users about possible issues of using GPU for speech recognition.
- Applications. Added parsing of encrypted msgstore-increment\*.db.crypt14 files from WhatsApp backup from Android devices.
- General. Fixed the issue that occurred when saving data to the .ofbx backup in the Turkish language of the program interface.

## Changes in version 17.0 (September 2024):

- Speech Recognition. Added the ability to recognize and transcribe speech from audio and video files.
- Oxygen Forensic® Device Extractor. Added the ability to extract user application data and internal memory data from unlocked Android devices running Android OS 9-14 that have the SPL no later than June 1, 2024.
- Oxygen Forensic® Device Extractor. Added the ability to extract data from MTK-based devices with the latest TEE Samsung Teegris.
- Oxygen Forensic® Device Extractor. Added the ability to extract the full file system and keychain via checkm8 from iPad mini 4 running iOS 14.8.1 15.8.3, iPad 5th gen running iOS 16.4 16.7.10 and iPad 6th gen, iPad 7th gen running iOS 16.4 16.7.2.
- Oxygen Forensic® Device Extractor. Added the ability to extract the full file system and keychain via iOS Agent from iPhone devices based on the A9-A13 chipsets, and iPad devices based on the A8, A8X A12, A12X, A12Z chipsets running iOS 13.0 13.7.

- Oxygen Forensic® Device Extractor. Added the ability to extract the full file system and keychain via iOS Agent from iPhone 6s, iPhone 6s Plus, iPhone SE, iPhone 7, iPhone 7 Plus, iPad mini 4 and iPad Air 2 running iOS up to 15.8.3.
- Oxygen Forensic® Device Extractor. Accelerated data extraction from iOS devices via iOS Agent, iOS SSH and checkm8 vulnerability.
- Oxygen Forensic® Device Extractor. Updated the ability to extract Discord data via Android Agent.
- Oxygen Forensic® Cloud Extractor. Added the ability to extract data about video calls from WhatsApp Cloud.
- Oxygen Forensic® Cloud Extractor. Updated the ability to extract OneDrive data.
- Oxygen Forensic® Cloud Extractor. Updated the ability to authorize in Samsung Health and extract Samsung Health data.
- Oxygen Forensic® Cloud Extractor. Significantly improved support for the WhatsApp QR Multi-Device service.
- Oxygen Forensic® Cloud Extractor. Updated the parsing of Box file paths.
- Oxygen Forensic® KeyDiver. Added the ability to find passcodes to encrypted Android backups.
- Oxygen Forensic® KeyDiver. Added the ability to find passcodes to encrypted RAR archives.
- Oxygen Forensic® KeyDiver. Added the ability to find passcodes to encrypted MS Office files (Word, Excel, PowerPoint).
- Oxygen Forensic® KeyDiver. When an encrypted Android backup is imported into Oxygen Forensic® Detective, Oxygen Forensic® KeyDiver is automatically opened for a passcode bruteforce.
- Oxygen Forensic® KeyScout. Added the ability to save an extracted disk image or disk partition to E01 or RAW formats.
- Oxygen Forensic® KeyScout. Added the ability to extract passwords from DuckDuckGo browser from Windows.
- Oxygen Forensic® KeyScout. Added the ability to extract passwords from KeePass from Windows and GNU/Linux.
- Oxygen Forensic® KeyScout. Added the ability to extract Bitwarden data from Windows, macOS and GNU/Linux.
- Oxygen Forensic® KeyScout. Added the ability to extract qBittorrent data from Windows, macOS and GNU/Linux.
- Oxygen Forensic® KeyScout. Added the ability to extract data from Bitwarden Password Manager web extension from Windows. macOS and GNU/Linux.
- Oxygen Forensic® KeyScout. Added support for macOS 15 Sequoia (beta).
- Oxygen Forensic® KeyScout. Updated the ability to extract Microsoft Teams data from Windows and macOS.
- Translation. Added support for the Korean, Hungarian, Slovenian, Croatian, Telugu and Georgian languages.
- Malware. Added the ability to download weekly offline antivirus database updates from the customer area.
- Import. Added the ability to decrypt physical images of MTK-based devices running Android 14.
- Import. Added the ability to import Huawei backups created with Huawei HiSuite ver. 13.0 and 14.0.
- Import. Added the ability to import data extracted by Oxygen Forensic® KeyScout directly into Oxygen Forensic® Detective.
- Import. Added the ability to import and parse vCard files.
- Import. Improved support for MTK-based devices with TEE Samsung Teegris.
- Timeline. Added the ability to filter by device owner's geo-coordinates and geo-coordinates obtained from third-party sources.
- Export. Added the ability to export messages to one file in PDF/PST formats from the Messages section and to PST format directly from applications.
- Export. Now Speech and Text recognition results are included in the report.
- Export. Added the ability to select the categories to be exported from a contact card.
- Export. Added the ability to include the Name and File path fields for Identified faces/Similar images when exporting data from the Faces section.
- Export. Added the ability to select the CloudNine/DISCO export templates while exporting to Load file format and the ability to export data to Load file format from the main screen.
- Applications. Added data parsing from over 1000 new app versions from Apple iOS and Android devices. The total number of supported versions exceeds 48000.
- Applications. Organizer. Updated data parsing from Google Keep (2.2024.29202) from Apple iOS devices and Google Keep (5.24.312.02.90) from Android devices.
- Applications. Messengers. Updated data parsing from WhatsApp (2.24.16.76) from Android devices and from WhatsApp (24.16.78) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Telegram (11.0.0) from Android devices.
- Applications. Social Networks. Updated data parsing from Instagram (340.0.10) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from Snapchat (12.96.0.42) from Apple iOS devices and Snapchat (12.96.0.42) from Android devices.
- Applications. Social Networks. Updated data parsing from VK (8.88) from Apple iOS devices and VK (8.63) from Android devices.
- Applications. Social Networks. Updated data parsing from TikTok (35.6.0) from Apple iOS devices.

### Changes in version 16.3.1 (July 2024):

- Oxygen Forensic® Device Extractor. Added the ability to extract hardware keys and decrypt physical dumps of devices based on the MT6767, MT6797 and MT6891 chipsets and running Android 10 and higher.
- Oxygen Forensic® Device Extractor. Added the ability to extract the OS version and the last activity time of the devices authorized in WhatsApp and WhatsApp Business accounts.
- Oxygen Forensic® Device Extractor. Added the ability to extract avatars of group chats and chats within communities via Android Agent from WhatsApp and WhatsApp Business.
- Oxygen Forensic® Device Extractor. Added the ability to extract the full file system and keychain via iOS Agent from iOS devices based on the A12 A14, M1 chipsets and having iOS 16.6 16.6.1, based on the A15 A16, M2 chipsets and having iOS 16.5.1 16.6.1 and based on the A12X and A12Z chipsets and having iOS 15.2 16.6.1.
- Oxygen Forensic® Device Extractor. Qualcomm EDL: improved support for Xiaomi Redmi Note 8T (SDM665).
- Oxygen Forensic® Cloud Extractor. Added the ability to extract "Share live location" data from WhatsApp Cloud.
- Oxygen Forensic® Cloud Extractor. Updated the ability to authorize in OnlyFans via Google.
- Oxygen Forensic® Cloud Extractor. Updated the ability to authorize in Viber Cloud.
- Oxygen Forensic® Cloud Extractor. Updated the ability to authorize in Evernote via login/password and Google.
- Oxygen Forensic® Cloud Extractor. Updated the parsing of Grindr iCloud Backup, Grindr Google Backup, IMO, TamTam, Viber Google Backup, Viber iCloud Backup, Viber Cloud, and WhatsApp QR Multidevice cloud chats to ensure accurate visualization in the Chats section.
- Oxygen Forensic® KeyDiver. When an encrypted iTunes backup is imported into Oxygen Forensic® Detective, Oxygen Forensic® KeyDiver is automatically opened for a passcode bruteforce.
- Oxygen Forensic® KeyScout. Added the information about found passcodes to the Encrypted data tab.
- Oxygen Forensic® KeyScout. Added the ability to cancel memory dump creation on Windows.
- Oxygen Forensic® KeyScout. Added the ability to collect Apple Music data from Windows and macOS.
- Oxygen Forensic® KeyScout. Added the ability to collect KeePass data from Windows and GNU/Linux.
- Oxygen Forensic® KeyScout. Added the ability to collect BlueStacks emulator data from Windows.
- Oxygen Forensic® KeyScout. Added support for a new encryption type of Viber from GNU/Linux.
- Oxygen Forensic® KeyScout. Updated the ability to extract the information about folders viewed by the user on Windows.
- Oxygen Forensic® KeyScout. Improved parsing of EXT4 partitions.
- Malware. Added the ability to download daily antivirus updates from the customer area.
- Import. Added the ability to import iCloud Backup included with Apple Warrant Returns.
- Import. Added the ability to import Snapchat My Data backups in HTML format.
- Import. Improved support for MTK-based devices with TEE Microtrust.
- Import. Improved support for UNISOC-based devices with TEE Trusty.
- Import. Improved support for MTK-based devices with TEE Kinibi.
- Files. Added the ability to save selected video frames to PNG format.
- Export. Added the ability to split RSMF reports by number of entries.
- Export. Added the ability to sort data when exporting it to Load file format from Desktop.
- Export. Added the ability to set a name for exported attachments and files while exporting to Load file format.
- Applications. Added data parsing from over 700 new app versions from Apple iOS and Android devices. The total number of supported versions exceeds 46900.
- Applications. OS artifacts. Added parsing of Samsung media from Android devices.
- Applications. OS artifacts. Added parsing of Installed applications from Android devices.
- Applications. Messengers. Added data parsing from Nicegram (1.26.0) from Android devices and Nicegram (1.6.2) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Skype (8.108) from Apple iOS devices.
- Applications. Business. Updated data parsing from Mega (12.0(241080022)(af65996f9b) from Android devices and Mega (12.0) from Apple iOS devices.

# Changes in version 16.3.0.200 (June 2024):

- Applications. Updated parsing of Telegram chats from Android devices.
- Oxygen Forensic® Device Extractor. Fixed the issue with full file system and keychain extraction via iOS Agent from iPhone 8, iPhone 8 Plus, and iPhone X running iOS version up to 16.6.1.

# Changes in version 16.3 (June 2024):

- Malware. Added the ability to scan extracted files for malware.
- Oxygen Forensic® Device Extractor. Added the ability to extract hardware keys and decrypt physical dumps of Android devices based on the SDM665, SDM675, SDM730, and SDM855 chipsets.
- Oxygen Forensic® Device Extractor. Added the ability to extract hardware keys and decrypt physical dumps of MTK-based Omix and Reeder devices.
- Oxygen Forensic® Device Extractor. Added the ability to extract hardware keys and decrypt physical dumps of UNISOC-based Omix and Reeder devices.

- Oxygen Forensic® Device Extractor. Added the ability to extract hardware keys and decrypt physical dumps of devices based on the MT6750, and MT6855 chipsets and running Android 10 and higher.
- Oxygen Forensic® Device Extractor. Added the ability to save extracted memory card dumps to E01 format
- Oxygen Forensic® Device Extractor. Added the ability to extract the full file system and keychain via iOS Agent from iPhone 8, iPhone 8 Plus, iPhone X, iPad 5th gen, iPad Pro 12.9-in 1st gen, iPad Pro 9.7-in, iPad 6th gen, iPad 7th gen, iPad Pro 12.9 2nd gen and iPad Pro 10.5 running iOS up to 16.6.1.
- Oxygen Forensic® Device Extractor. Added the ability to extract the full file system and keychain via iOS Agent from iPhone 6s, iPhone 6s Plus, iPhone SE, iPhone 7, iPhone 7 Plus, iPad mini 4 and iPad Air 2 running iOS up to 15.8.2.
- Oxygen Forensic® Device Extractor. Added the ability to skip the necessity of switching a device to the Recovery mode during checkm8 extraction.
- Oxygen Forensic® Device Extractor. Added the instructions on how to switch iPhone devices to the DFU mode using test points during checkm8 extraction.
- Oxygen Forensic® Device Extractor. Added the ability to extract communities from WhatsApp and WhatsApp Business via Android Agent.
- Oxygen Forensic® Device Extractor. Updated the ability to extract WhatsApp and WhatsApp Business data via Android Agent.
- Oxygen Forensic® Device Extractor. Updated the ability to extract Zoom contacts and chats via Android Agent.
- Oxygen Forensic® Device Extractor. Updated the ability to extract Telegram contacts via Android Agent.
- Oxygen Forensic® Device Extractor. Improved the ability to make screenshots via Android Agent.
- Oxygen Forensic® Device Extractor. Improved the ability to extract the full file system and keychain without signing iOS Agent from iPhone Xr iPhone 13 devices running iOS 15.0 15.4.1.
- Oxygen Forensic® Device Extractor. Improved the ability to extract the full file system and keychain via checkm8 vulnerability with additional access rights.
- Oxygen Forensic® Device Extractor. General interface improvements.
- Oxygen Forensic® Cloud Extractor. Added the ability to extract polls using the WhatsApp QR Multi-Device service.
- Oxygen Forensic® Cloud Extractor. Added the ability to extract private and group chats from Steam.
- Oxygen Forensic® Cloud Extractor. Added the ability to authorize in Steam via QR code.
- Oxygen Forensic® Cloud Extractor. Added the new authorization algorithm in Google services.
- Oxygen Forensic® Cloud Extractor. Updated the ability to authorize in Steam.
- Oxygen Forensic® Cloud Extractor. Updated the ability to authorize in OnlyFans.
- Oxygen Forensic® Cloud Extractor. Updated the ability to authorize in My Parrot Cloud.
- Oxygen Forensic® Cloud Extractor. Updated the parsing of Telegram cloud chats to ensure accurate visualization in the Chats section.
- Oxygen Forensic® KeyScout. Added the ability to search plaintext files by file signature.
- Oxygen Forensic® KeyScout. Added new filters for found applications.
- Oxygen Forensic® KeyScout. Added the ability to generate bug reports on Windows.
- Oxygen Forensic® KeyScout. Added the ability to extract the list of installed applications from NTUSER.dat file from Windows.
- Oxygen Forensic® KeyScout. Added the ability to extract the information about packages installed by Pacman on GNU/Linux.
- Oxygen Forensic® KeyScout. Added the ability to extract supported applications from the Arch Linux distribution.
- Oxygen Forensic® KeyScout. Added the ability to extract Transmission torrent client data from Windows, macOS and GNU/Linux.
- Oxygen Forensic® KeyScout. Added the ability to extract passwords from 1Password from Windows, macOS, and GNU/Linux.
- Oxygen Forensic® KeyScout. Added the ability to extract passwords from DuckDuckGo browser from macOS.
- Oxygen Forensic® KeyScout. Added the ability to extract DuckDuckGo browser data from Windows and macOS.
- Oxygen Forensic® KeyScout. Added the ability to extract Microsoft Defender data from Windows.
- Oxygen Forensic® KeyScout. Added the ability to extract Microsoft Photos data from Windows.
- Oxygen Forensic® KeyScout. Added the ability to extract Microsoft Sticky Notes data from Windows.
- Oxygen Forensic® KeyScout. Added the ability to extract Apple Weather data from macOS.
- Oxygen Forensic® KeyScout. Added the ability to extract Spark installed from the App Store from macOS.
- Oxygen Forensic® KeyScout. Added the ability to extract NordVPN installed from the App Store from macOS
- Oxygen Forensic® KeyScout. Added the ability to extract Facebook Messenger installed from the App Store from macOS.
- Oxygen Forensic® KeyScout. Added the ability to extract additional data from AnyDesk from Windows, macOS and GNU/Linux.
- Oxygen Forensic® KeyScout. Added the ability to extract additional data from Opera from Windows, macOS and GNU/Linux.

- Oxygen Forensic® KeyScout. Updated the ability to extract Facebook Messenger from Windows.
- Oxygen Forensic® KeyScout. Updated the ability to extract Mail and Calendar from Windows.
- Facial Categorization. Added the ability to select specific files for facial categorization.
- Translation. Added support for Romanian, Estonian, Lithuanian, Latvian, Norwegian, Urdu, Nepali and Hebrew languages.
- Import. Added the ability to import and parse X (Twitter) archives.
- Import. Added the ability to import and parse ULog logs of PX4-based drones.
- Import. Added the ability to import physical dumps of Android devices based on the SDM665, SDM675, SDM730, SDM855 chipsets.
- Import. Added the ability to import physical dumps of MTK-based devices having TEE MITEE.
- Import. Updated the ability to import physical dumps of MTK-based devices having TEE T6.
- Import. Added the ability to parse the additional device information from MD-NEXT extractions.
- Import. Updated support for Instagram account copy.
- Import. Improved support for UFDR files.
- Export. Added the ability to split XLS and XLSX reports by size or number of entries.
- Export. Added the ability to group the Faces section data by various criteria.
- Applications. Added data parsing from over 600 new app versions from Apple iOS and Android devices. The total number of supported versions exceeds 46200.
- Applications. OS artifacts. Added parsing of SD card files (from external.db) from Android devices.
- Applications. OS artifacts. Added parsing of Keyboard activity from Apple iOS devices.
- Applications. OS artifacts. Added parsing of Control Center activity from Apple iOS devices.
- Applications. Messengers. Added data parsing from Element (1.11.6) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Signal (6.37) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from WeChat (8.0.48) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from X (Twitter) (10.31.0-release.0) from Android devices and X (Twitter) (10.31.1) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from Facebook (455.0.0.44.88) from Android devices and Facebook (461.0.3) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from BeReal (2.7.0) from Apple iOS devices.
- Applications. Web Browsers. Updated data parsing from Google (15.14.36.28.arm64) from Android devices.
- Applications. Organizer. Updated data parsing from Huawei Notes from Android devices.

### Changes in version 16.2.0.200 (April 2024):

- Oxygen Forensic® Device Extractor. Updated the ability to extract WhatsApp and WhatsApp Business data via Android Agent.
- General. Improved keychain parsing from checkm8 and iOS Agent extractions.
- Import. Improved import of UFED backups and images.

# Changes in version 16.2 (March 2024):

- Oxygen Forensic® Device Extractor. Added the ability to extract hardware keys and decrypt physical dumps of Samsung devices based on the UNISOC SC9863A chipset and running Android OS 10-13.
- Oxygen Forensic® Device Extractor. Added the ability to extract hardware keys and decrypt physical dumps of Samsung devices based on Qualcomm Snapdragon SDM845 chipsets and Android OS 7 or higher.
- Oxygen Forensic® Device Extractor. Added the ability to extract hardware keys and decrypt physical dumps of Android OS devices based on the MT6781 and MT6877 chipsets and running Android OS 10 and higher.
- Oxygen Forensic® Device Extractor. Added the ability to extract the full file system from unlocked Android devices that have the arm64-v8a architecture, Linux Kernel 5.4 and SPL no later than October 2022
- Oxygen Forensic® Device Extractor. Added the ability to extract the second authorized WhatsApp and WhatsApp Business accounts via Android Agent.
- Oxygen Forensic® Device Extractor. Added the ability to extract additional data from Opera Browser via Android Agent.
- Oxygen Forensic® Device Extractor. Added the ability to extract the full file system and keychain via checkm8 from iPad with iOS 16.
- Oxygen Forensic® Device Extractor. Added the ability to extract the full file system and keychain via checkm8 from iPhone 6S and iPhone 7 with iOS 15.8.2.
- Oxygen Forensic® Device Extractor. Added the ability to extract the full file system and keychain via iOS Agent from Apple iOS devices based on the M1 chipset with iOS 16.5.1 and M2 chipset with iOS 16.5.
- Oxygen Forensic® Device Extractor. Accelerated data extraction from UNISOC-based Android devices.
- Oxygen Forensic® Device Extractor. Updated the ability to decrypt Signal backups extracted via Android Agent.
- Oxygen Forensic® Cloud Extractor. Added data extraction from Steam.
- Oxygen Forensic® Cloud Extractor. Added the ability to extract additional data from Reddit.
- Oxygen Forensic® Cloud Extractor. Updated the iCloud Agent that is used for iCloud data extraction.
- Oxygen Forensic® Cloud Extractor. Updated the ability to authorize in OnlyFans.

- Oxygen Forensic® KeyDiver. Added the ability to find passcodes to encrypted iTunes backups.
- Oxygen Forensic® KeyDiver. Added the ability to find passcodes to encrypted 7-ZIP.
- Oxygen Forensic® KeyScout. Added the ability to search by Microsoft Office signatures.
- Oxygen Forensic® KeyScout. Added the ability to analyze what files were recently open in Paint and WordPad on Windows.
- Oxygen Forensic® KeyScout. Added the ability to extract Steam data from Windows, macOS and GNU/Linux.
- Oxygen Forensic® KeyScout. Added the ability to extract BitTorrent data from Windows.
- Oxygen Forensic® KeyScout. Added the ability to extract 1Password data from Windows, macOS and GNU/Linux.
- Oxygen Forensic® KeyScout. Added the ability to extract Box Drive data from Windows and macOS.
- Oxygen Forensic® KeyScout. Added the ability to extract Box Tools data from Windows and macOS.
- Oxygen Forensic® KeyScout. Added the ability to extract a web version of Box from Windows, macOS and GNU/Linux.
- Oxygen Forensic® KeyScout. Improved support for AD1 format.
- Oxygen Forensic® KeyScout. Extended support for the Event log artifact from Windows.
- Oxygen Forensic® KeyScout. Updated the ability to extract WhatsApp data from macOS.
- Import. Added the ability to import and parse Apple Warrant Returns.
- Import. Added the ability to separately import Apple Keychain.
- Import. Added the ability to import VDI images of Android extractions.
- Import. Added decryption of Android KeyStore keys of UNISOC-based devices.
- Import. Added decryption of Android KeyStore keys of MTK-based devices.
- Import. Improved support for TEE Samsung Teegris.
- Import. Improved support for logical extractions of MD-Next.
- Import. Updated support for UFDR reports.
- Import. Updated the ability to import and parse Facebook account copy.
- Export. Added the ability to run preliminary export.
- Export. Added to split RSMFreports by size.
- Export. Added indexes for files with the same name.
- Export. Updated export of chats.
- Applications. Added new features for the Chats View.
- Applications. Added data parsing from over 400 new app versions from Apple iOS and Android devices. The total number of supported versions exceeds 45600.
- Applications. Messengers. Updated data parsing from Viber (21.8.0) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Discord (212.0) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from BiP (3.94.104) from Android devices and BiP (3.94.96) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from Instagram (319.0.0.43.110) from Android devices and Instagram (308.0) from Apple iOS devices.

#### Changes in version 16.1.1.147 (March 2024):

- Oxygen Forensic® KeyScout. Improved analysis of Volume Shadow Copy snapshots during live data extraction of Windows-based computers.
- Oxygen Forensic® KeyScout. Improved analysis of corrupted SQLite files.
- Oxygen Forensic® KeyScout. Improved parsing of ESE databases from Windows.
- Oxygen Forensic® KeyScout. Improved parsing of MFT records during recovery of deleted NTFS files.
- Oxygen Forensic® KeyScout. Improved parsing of NTFS artifacts from Windows.
- Oxygen Forensic® KeyScout. Improved parsing of Discord from Windows, macOS, and Linux.
- Oxygen Forensic® KeyScout. Improved parsing of Viber from Windows, macOS, and Linux.
- Oxygen Forensic® KeyScout. Improved token extraction from Viber from Windows.
- Oxygen Forensic® KeyScout. Accelerated parsing of Viber from Windows.
- Oxygen Forensic® KeyScout. Updated instruction on WhatsApp decryption on Windows.
- Search. Improved search when the Case Sensitive option is disabled.
- Applications. Messengers. Improved parsing of Apple Messages from iTunes backups.
- Applications. Messengers. Improved support for empty Apple Messages from Apple iOS devices.
- Applications. Messengers. Improved parsing of Telegram from Android devices.
- Applications. Messengers. Improved parsing of Telegram X from Android devices.
- Applications. Messengers. Improved parsing of calls from Apple iOS devices.
- Applications. Multimedia. Improved parsing of Voice Memos from Apple iOS devices.

# Changes in version 16.1.1 (February 2024):

- Oxygen Forensic® Extractor. Added the ability to extract hardware keys and decrypt physical dumps of Android OS devices based on the Qualcomm Snapdragon 845/710 chipset and running Android OS 7 and higher.
- Oxygen Forensic® Extractor. Added the ability to extract hardware keys and decrypt physical dumps of Android OS devices based on the MT6771 and MT6873 chipsets.
- Oxygen Forensic® Extractor. Added the ability to extract app data via Android Agent from devices running Android OS 14.

- Oxygen Forensic® Extractor. Added additional filters for Telegram data extraction via Android Agent.
- Oxygen Forensic® Extractor. Added the ability to extract the full file system and keychain via checkm8 from iPhone 6S and iPhone 7 with iOS 15.8.1.
- Oxygen Forensic® Extractor. Added the ability to extract the full file system and keychain via iOS Agent from Apple iOS devices based on the A12-A16 chipsets with iOS 16.5.1.
- Oxygen Forensic® Extractor. Updated the ability to decrypt Signal backups extracted via Android Agent.
- Oxygen Forensic® Extractor. Updated the ability to extract Google Chrome bookmarks and tabs via Android Agent.
- Oxygen Forensic® Extractor. Interface improvements for Web Browser data extraction via Android Agent.
- Oxygen Forensic® Extractor. Improved the stability of the extraction method via checkm8 vulnerability.
- Oxygen Forensic® Extractor. The number of media files, calendar events and contacts is now shown before public data extraction via iOS Agent.
- Oxygen Forensic® Cloud Extractor. Added data extraction from Reddit.
- Oxygen Forensic® Cloud Extractor. Updated the ability to authorize in Telegram.
- Oxygen Forensic® KeyScout. Added the progress bar for saving files and the ability to stop the saving process.
- Oxygen Forensic® KeyScout. Added .torrent extension on the Files tab in the Search Profiles.
- Oxygen Forensic® KeyScout. Added the ability to extract µTorrent data from Windows.
- Oxygen Forensic® KeyScout. Added the ability to extract information from .torrent files from Windows, macOS and GNU/Linux.
- Oxygen Forensic® KeyScout. Added the ability to extract Apple FaceTime data from macOS.
- Oxygen Forensic® KeyScout. Added the ability to extract OpenOffice data from Windows and GNU/Linux.
- Oxygen Forensic® KeyScout. Added the ability to extract FastStone Image Viewer data from Windows.
- Oxygen Forensic® KeyScout. Added the ability to extract Microsoft Outlook data from macOS.
- Oxygen Forensic® KeyScout. Added support for the new encryption algorithm of Viber on Windows.
- Oxygen Forensic® KeyScout. Added the ability to extract Exodus cryptocurrency addresses from Windows, macOS and GNU/Linux.
- Oxygen Forensic® KeyScout. Added the ability to extract information about the packages installed with the help of Snap on GNU/Linux.
- Oxygen Forensic® KeyScout. Updated the ability to extract Facebook Messenger data from Windows and macOS.
- Oxygen Forensic® KeyScout. Updated the ability to extract Microsoft Outlook data from Windows.
- Oxygen Forensic® KeyScout. Improved the Files tab interface.
- Oxygen Forensic® KeyScout. Improved support for HFS and HFS+ file systems.
- Oxygen Forensic® KeyScout. Improved work with temporary files.
- Oxygen Forensic® KeyScout. Improved data recovery from NTFS file systems.
- Import. Added the ability to decrypt physical images of Android devices based on the Qualcomm Snapdragon 845/710 chipset.
- Import. Added the ability to decrypt physical images of Android devices based on the MT6771 and MT6873 chipsets.
- Import. Added the ability to decrypt physical images of Android devices based on the UNISOC chipsets and having TEE Trusty.
- Import. Updated support for Facebook account copy.
- General. The translation tool now supports Turkish, Farsi, Polish, Ukrainian and Belorussian languages.
- General. Added the File information panel to the main Extraction window.
- Export. Added data export to PST files.
- Export. Added the ability to group files by extension.
- Export. Improvements for the Search section reports.
- Applications. Added data parsing from over 900 new app versions from Apple iOS and Android devices. The total number of supported versions exceeds 45200.
- Applications. Multimedia. Added data parsing from CapCut (10.6.0) from Android devices and CapCut (10.2.1) from Apple iOS devices.
- Applications. Multimedia. Added data parsing from Files (16.2) from Apple iOS devices.
- Applications. Organizer. Added data parsing from Alarms (16.2) from Apple iOS devices.
- Applications. Multimedia. Added data parsing from Weather (16.2) from Apple iOS devices.
- Applications. OS Artifacts. Added parsing of TCC access permissions from Apple iOS devices.
- Applications. Messenger. Updated data parsing from Telegram (10.6.2) from Android devices and Telegram (10.5.2) from Apple iOS devices.
- Applications. Messenger. Updated data parsing from Discord (206.16) from Android devices.
- Applications. Messenger. Updated data parsing from Apple messages (16.2) from Apple iOS devices.
- Applications. Messenger. Updated data parsing from Event Log (16.2) from Apple iOS devices.
- Applications. Messenger. Updated data parsing from Viber (21.8.1.0) from Android devices.
- Applications. Business. Updated data parsing from Outlook (4.2240.4) from Android devices and Outlook (4.2402.0) from Apple iOS devices. .
- Applications. Business. Updated data parsing from Apple mail (16.2) from Apple iOS devices.

- Applications, Navigation. Updated data parsing from Apple maps (16.2) from Apple iOS devices.
- Applications. Organizer. Updated data parsing from Apple calendar (16.2) from Apple iOS devices.
- Applications. Organizer. Updated data parsing from Apple Voice memos (16.2) from Apple iOS devices.
- Applications. Organizer. Updated parsing of Phonebook from Apple iOS devices.
- Applications. Web Browsers. Updated data parsing from Safari (16.2) from Apple iOS devices.

### Changes in version 16.1.0.200 (December 2023):

• Fixed the issue when after the database storage folder cleanup cases were deleted and extractions were moved to unassigned extractions.

### Changes in version 16.1 (December 2023):

- Oxygen Forensic® Extractor. Added the ability to extract hardware keys and decrypt physical dumps of Android OS devices based on the UNISOC SC9863A chipset, running Android OS 10-13 and having File-Based Encryption (FBE).
- Oxygen Forensic® Extractor. Added the ability to extract hardware keys and decrypt physical dumps of Android OS devices based on the MT6893 and MT6853 chipsets.
- Oxygen Forensic® Extractor. Added the ability to extract the full file system from unlocked Android devices that have the SPL no later than October 2022.
- Oxygen Forensic® Extractor. Added the ability to extract Opera Browser data via Android Agent from unlocked Android devices.
- Oxygen Forensic® Extractor. Added the ability to extract the full file system and keychain via iOS Agent from iPads based on the A8 A15, M1, and M2 chipsets and running iPadOS 15.0 15.7.3, and 16.1 16.5.
- Oxygen Forensic® Extractor. Added the ability to extract the full file system and keychain via iOS Agent from iPhones based on the A9 A11 chipsets and running iOS versions 15.0 15.7.3, 16.0 16.5.
- Oxygen Forensic® Extractor. Updated the ability to extract Zoom data via Android Agent from unlocked Android devices.
- Oxygen Forensic® Extractor. Updated the ability to extract contacts from Silent Phone via Android Agent from unlocked Android devices.
- Oxygen Forensic® Extractor. Updated the ability to extract contacts from Line via Android Agent from unlocked Android devices.
- Oxygen Forensic® Extractor. Extended the list of applications supported by the APK Downgrade method
- Oxygen Forensic® Extractor. Now the list of supported applications can be seen on the main window of the APK Downgrade method.
- Oxygen Forensic® Extractor. Added the device cards with the detailed device information.
- Oxygen Forensic® Extractor. Improved the stability of the iOS Agent method.
- Oxygen Forensic® Cloud Extractor. Added the ability to authorize in the WhatsApp QR Multi-Device service via phone number.
- Oxygen Forensic® Cloud Extractor. Added the ability to extract Facebook data via iOS token.
- Oxygen Forensic® Cloud Extractor. Updated the ability to extract Discord tokens from Android devices.
- Oxygen Forensic® Cloud Extractor. Updated the ability to extract Discord data.
- Oxygen Forensic® Cloud Extractor. Updated the ability to authorize in Amazon Alexa via login and password.
- Oxygen Forensic® KeyDiver. Added the ability to brute force passwords to decrypt partitions protected with BitLocker, and FileVault 2.
- Oxygen Forensic® KeyDiver. Added the ability to brute force passwords to decrypt encrypted ZIP files.
- Oxygen Forensic® KeyDiver. Added the ability to brute force passwords to decrypt Telegram Desktop.
- Oxygen Forensic® KeyDiver. Added the ability to brute force passwords to decrypt Apple Notes.
- Oxygen Forensic® KeyDiver. Added the ability to find passcodes using the personal data from extractions.
- Oxygen Forensic® KeyScout. Added the ability to import and parse computer images of AFF4 format.
- Oxygen Forensic® KeyScout. Added the ability to import and parse computer images of VHDX format.
- Oxygen Forensic® KeyScout. Added the ability to recover deleted files from NTFS while running live extraction, importing computer images or connecting external drives.
- Oxygen Forensic® KeyScout. Added the ability to export the list of files without saving their content.
- Oxygen Forensic® KeyScout. Added support for macOS based on the ARM processors without Rosetta installed.
- Oxygen Forensic® KeyScout. Added the ability to extract the information about recently used applications, documents, servers, partitions and other objects of macOS.
- Oxygen Forensic® KeyScout. Added the ability to extract LibreOffice data from Windows, macOS and GNL/Linux
- Oxygen Forensic® KeyScout. Added the ability to extract Exodus data from Windows, macOS and GNU/Linux
- Oxygen Forensic® KeyScout. Added the ability to extract Todoist data from Windows, macOS and GNU/Linux.

- Oxygen Forensic® KeyScout. Added the ability to extract stories of public channels and quoted messages from Telegram for macOS.
- Oxygen Forensic® KeyScout. Updated the ability to extract OneDrive data from Windows and macOS.
- Oxygen Forensic® KeyScout. Updated the ability to extract Slack data from Windows, macOS and GNU/Linux.
- General. Added the ability to translate extracted data.
- General. Added the ability to manually or automatically delete deleted extraction files from the repository.
- Import. Added the ability to import Instagram account copy.
- Import. Added the ability to import and parse logical FFS extractions of MDF(MD-Next).
- Import. Added the ability to decrypt physical images of Android devices based on the UNISOC SC9863A chipset.
- Import. Added the ability to decrypt physical images of Android devices based on the MT6893 and MT6853 chipsets.
- Import. Added the ability to select the keychain file during import.
- Import. Now data from the UFD manifest file is shown in the Extraction Info and Device Info.
- Statistics. Added the First Contacted information.
- Export. Added the ability to export translated data.
- Export. Added the ability to split the reports while exporting chats.
- Export. Fixed the issues that occurred while exporting the Search section data.
- Applications. Added data parsing from over 500 new app versions from Apple iOS and Android devices. The total number of supported versions exceeds 44300.
- Applications. Password Managers. Added data parsing from Bitwarden (2023.10.0) from Android devices and Bitwarden (2023.10.0) from Apple iOS devices.
- Applications. Organizer. Added data parsing from Trello (2023.14.3.8665) from Android devices and Trello (2023.14) from Apple iOS devices.
- Applications. Messengers. Added data parsing from Message+ (5.3.7) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Signal (6.37.2) from Android devices and Signal (6.37) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Discord (166.15) from Android devices and Discord (203.0) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Facebook Messenger (434.0.0.30.104) from Android devices and Facebook Messenger (434.0) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Viber (21.3.2.0) from Android devices and Viber (21.3.0) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from TamTam (3.14) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from Facebook (439.0.0.1.117) from Android devices and Facebook (440.0) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from Grindr (9.17.3) from Android devices and Grindr (9.16.1) from Apple iOS devices.
- Applications. Business. Updated data parsing from GMail (2023.10.29.580630254.Release) from Android devices and GMail (6.0.231023) from Apple iOS devices.
- Applications. Business. Updated data parsing from Email.cz (4.16.4) from Apple iOS devices.

### Changes in version 16.0.1 (October 2023):

- Oxygen Forensic® Extractor. Added the ability to extract public data via iOS Agent from Apple iOS devices.
- Oxygen Forensic® Extractor. Added the animated instructions for the checkm8 method.
- Oxygen Forensic® Extractor. Added the ability to extract Apple iOS 17 devices via iTunes backup procedure.
- Oxygen Forensic® Extractor. Added the ability to extract data via iTunes backup procedure from iPhone 15, iPhone 15 Plus, iPhone 15 Pro and iPhone 15 Pro Max.
- Oxygen Forensic® Extractor. Added the ability to extract the full file system and keychain from iPhone 6s and iPhone 7 devices running iOS version 15.7.9.
- Oxygen Forensic® Extractor. Added the ability to conduct logical extraction, make screenshots and video recordings of data via Android Agent from Android OS 14 devices.
- Oxygen Forensic® Extractor. Added the ability to extract Android KeyStore from devices with the pre-installed Android OS 13.
- Oxygen Forensic® Extractor. Updated the ability to extract WhatsApp and WhatsApp Business via Android Agent.
- Oxygen Forensic® Extractor. Updated the ability to extract Discord via Android Agent.
- Oxygen Forensic® Extractor. Updated the ability to extract Viber via Android Agent.
- Oxygen Forensic® Extractor. Updated the ability to extract Google Chrome via Android Agent.
- Oxygen Forensic® Extractor. Updated the ability to extract X (Twitter) via Android Agent.
- Oxygen Forensic® Extractor. Updated the ability to extract Telegram via Android Agent.
- Oxygen Forensic® Extractor. Updated the ability to extract Kik via Android Agent.
- Oxygen Forensic® Extractor. Added the ability to re-extract data protected with the screen lock passcode if the first attempt to extract it via Android Agent method failed.
- Oxygen Forensic® Extractor. Redesigned the selective data extraction window in the Android Agent.

- Oxygen Forensic® Cloud Extractor. Added support for CAPTCHA for WhatsApp cloud.
- Oxygen Forensic® Cloud Extractor. Updated the ability to extract data from WhatsApp QR Multi-device.
- Oxygen Forensic® Cloud Extractor. Updated the ability to authorize in Huawei Cloud Data.
- Oxygen Forensic® KeyScout. Added the ability to decrypt VeraCrypt containers with keyfiles.
- Oxygen Forensic® KeyScout. Added the ability to decrypt user passwords extracted from FileZilla Client.
- Oxygen Forensic® KeyScout. Added the ability to decrypt logins and passwords saved in the system VPN client.
- Oxygen Forensic® KeyScout. Added the ability to extract serial numbers of macOS computers.
- Oxygen Forensic® KeyScout. Added data parsing from VeraCrypt app from Windows, macOS and GNU/Linux.
- Oxygen Forensic® KeyScout. Added data parsing from IrfanView app from Windows.
- Oxygen Forensic® KeyScout. Added data parsing from KMPlayer from Windows.
- Oxygen Forensic® KeyScout. Added the ability to extract Dropbox from GNU/Linux.
- Oxygen Forensic® KeyScout. Added the ability to extract the creation and modification dates of APFS partitions.
- Oxygen Forensic® KeyScout. Added the ability to extract the history of the user logins from Apple System Logs (ASL) from macOS.
- Oxygen Forensic® KeyScout. Added the ability to extract the information about documents printed with CUPS (Common UNIX Printing System) from macOS and GNU/Linux.
- Oxygen Forensic® KeyScout.Added the ability to extract the information about trusted documents and locations stored in MS Office apps.
- Oxygen Forensic® KeyScout. Added the information about bookmarks and sessions of web browsers based on the Blink engine.
- Oxygen Forensic® KeyScout. Added the ability to import the list of search paths and excluded file paths.
- Oxygen Forensic® KeyScout. Updated the ability to extract Dropbox from Windows and macOS.
- Oxygen Forensic® KeyScout. Extended the information extracted from the cache of apps based on the Blink engine from Windows, macOS andGNU/Linux.
- Oxygen Forensic® KeyScout. Extended the ability to generate a report about performed operations.
- Oxygen Forensic® KeyScout. Improved the ability to download symbols from Windows Server.
- Oxygen Forensic® KeyScout. Improved the overall functionality and UI.
- Import. Added the ability to decrypt physical images of Honor 7S and Huawei Y5 devices.
- Import. Added the ability to extract file metadata from UFED extractions of CLBX format.
- Import. Updated support for Mediatek-based Android devices having TEE T6.
- Import. Updated support for UNISOC-based Android devices having TEE Trusty.
- Contacts. Added deduplication of events in the Contacts card and Communications panel.
- File Viewer. Added the ability to open binary XML files.
- Export. Added the ability to export email messages to MSG format of Microsoft Outlook.
- Export. Added the ability to export contacts to VCF format.
- Export. Excluded .SMIL files from reports.
- Export. Improved the Reports section.
- Applications. Added the ability to filter by missing attachments.
- Applications. Added data parsing from over 2500 new app versions from Apple iOS and Android devices. The total number of supported versions exceeds 43800.
- Applications. Social Networks. Added data parsing from Bumble (5.339.1) from Android devices and Bumble (5.306.0) from Apple iOS devices.
- Applications. Business. Added data parsing from Todoist (v11034) from Android devices and Todoist (23.9.15) from Apple iOS devices.
- Applications. Business. Added data parsing from Samsung My Files (10.1.13.391) from Android devices.
- Applications. Business. Added data parsing from Gmail Go (2022.10.10.480125827) from Android devices.
- Applications. Messengers. Updated data parsing from Facebook Messenger (423.0.0.25.113) from Android devices and Facebook Messenger (422.0) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Telegram (10.0.2) from Android devices and Telegram (10.1.2) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from WhatsApp (2.23.19.84) from Android devices and WhatsApp (23.20.1) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Skype (8.104.0.208) from Android devices and Skype (8.99.1) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Viber (21.1.0.0) from Android devices and Viber (21.1.0) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from ICQ (23.1.1(10011564)) from Android devices and ICQ (23.1.1) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from Instagram (297.0.0.40.109) from Android devices and Instagram (303.3) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from JusTalk (8.8.26) from Android devices and JusTalk (8.7.44) from Apple iOS devices.

- Applications. Social Networks. Updated data parsing from X (Twitter) (10.7) from Apple iOS devices and X (Twitter) X (10.10.0-release.0) from Android devices.
- Applications. Social Networks. Updated data parsing from Facebook (428.0) from Apple iOS devices and Facebook (435.0.0.42.112) from Android devices.
- Applications. Social Networks. Updated data parsing from Snapchat (11.65.1.32) from Android devices.
- Applications. Social Networks. Updated data parsing from Moj (23.16.1) from Apple iOS devices.
- Applications. Business. Updated data parsing from Gmail (2023.08.20.561750975) from Android devices and Gmail (6.0.230723) from Apple iOS devices.
- Applications. Business. Updated data parsing from TempMail (3.36) from Android devices and TempMail (3.1.1) from Apple iOS devices.
- Applications. Business. Updated data parsing from Xiaomi Notes (6.0.9) from Android devices.
- Applications. Web Browsers. Updated data parsing from Google Chrome (118.0.5993.48) from Android devices and Google Chrome (118.0.5993.585) from Apple iOS devices.
- Applications. Web Browsers. Updated data parsing from Samsung Internet Browser (22.0.6.9) from Android devices.
- Applications. Web Browsers. Updated data parsing from Vivaldi Browser (6.2.3110.86) from Android devices.

### Changes in version 16.0 (September 2023):

- Oxygen Forensic® Extractor. Added the ability to extract hardware keys and decrypt physical dumps of devices based on the UNISOC T606, T616, T612 and T310 chipsets and running Android OS 10 13.
- Oxygen Forensic® Extractor. Added the ability to extract hardware keys and decrypt physical dumps of Xiaomi Redmi 7A/8/8A devices based on the Qualcomm SDM439 chipset.
- Oxygen Forensic® Extractor. Added the ability to extract app data from Android devices with OS 12-13 using the APK Downgrade method.
- Oxygen Forensic® Extractor. Added the ability to extract the file system and keychain via iOS Agent from iOS devices running iOS 14.6 14.8.1, 15.6 15.7.1, and 16.0 16.5.
- Oxygen Forensic® Extractor. Added the ability to extract the full file system and keychain via checkm8 from Apple iOS devices with iOS version 15.7.8.
- Oxygen Forensic® Extractor. Added the ability to extract and analyze iTunes backups made from iOS 17 Beta devices.
- Oxygen Forensic® Extractor. Added the ability to extract Samsung Browser data from Android devices via Android Agent.
- Oxygen Forensic® Extractor. Added the ability to brute force passcodes for Briar app in the Full File System extraction method for Android devices.
- Oxygen Forensic® Extractor. Added the information about keychain extraction via iOS agent in the Devices section.
- Oxygen Forensic® Extractor. Added the Themes Editor.
- Oxygen Forensic® Cloud Extractor. Added the ability to extract data from Clubhouse.
- Oxygen Forensic® Cloud Extractor. Added the ability to extract data from Bumble.
- Oxygen Forensic® Cloud Extractor. Added the ability to extract data from Google Messages.
- Oxygen Forensic® Cloud Extractor. Added the ability to extract new artifacts from Facebook.
- Oxygen Forensic® Cloud Extractor. Updated the ability to authorize in Viber Cloud.
- Oxygen Forensic® Cloud Extractor. Updated the ability to authorize in WhatsApp Cloud.
- Oxygen Forensic® Cloud Extractor. Updated the ability to extract attachments from Discord.
- Oxygen Forensic® Cloud Extractor. Updated the ability to authorize in Google.
- Oxygen Forensic® Cloud Extractor. Updated the ability to authorize in Runkeeper.
- Oxygen Forensic® KeyScout. Added the ability to extract VeraCrypt keys from Windows RAM.
- Oxygen Forensic® KeyScout. Added the ability to decrypt and analyze VerCrypt containers.
- Oxygen Forensic® KeyScout. Added the ability to recover deleted files from FAT16, FAT32 and exFAT file systems.
- Oxygen Forensic® KeyScout. Added the ability to set automatic saving and import of extracted data.
- Oxygen Forensic® KeyScout. Added support for macOS 14 Sonoma (beta 4).
- Oxygen Forensic® KeyScout. Added the ability to decrypt Viber databases from macOS.
- Oxygen Forensic® KeyScout. Added the ability to decrypt WhatsApp databases from Windows images.
- Oxygen Forensic® KeyScout. Added the ability to extract NordVPN from Windows, macOS and GNU/Linux.
- Oxygen Forensic® KeyScout. Added the ability to extract PureVPN from Windows, macOS and GNU/Linux.
- Oxygen Forensic® KeyScout. Added the ability to extract Telegram stories from macOS.
- Oxygen Forensic® KeyScout. Added the ability to extract VLC Media Player from Windows, macOS and GNU/Linux.
- Oxygen Forensic® KeyScout. Added the ability to extract a paid version of ViPole from Windows, macOS and GNU/Linux.
- Oxygen Forensic® KeyScout. Added the ability to extract installed Homebrew packages from macOS.
- Oxygen Forensic® KeyScout. Added the ability to extract Shim Cache from Windows.

- Oxygen Forensic® KeyScout. Added the ability to extract information about permissions that were given to applications on Windows.
- Oxygen Forensic® KeyScout. Improved Interface scaling.
- Import. Added selective data analysis of imported Oxygen Forensic® KeyScout extractions.
- Import. Added the ability to brute force passcodes for Apple Notes.
- Import. Added the ability to decrypt physical dumps of Xiaomi Redmi 7A/8/8A based on the Qualcomm SDM439 chipset.
- Import. Added the ability to decrypt physical dumps of Unisoc T606/T616/T612 and T310 chipsets.
- Import. Added the ability to import and analyze XRY backups of versions 10.3.1 and newer (formats 11 and 12).
- Image Categorization. Added the ability to categorize images by new threats: medical, meme, offensive gesture, and schematic.
- Timeline. Added a new smart filter that allows showing events before and after the events marked with a particular tag.
- Files. Added the ability to add extensions to the names of saved files that have no extension.
- Contacts. Added the ability to filter by common contacts in a case.
- Oxygen Forensic® Viewer. Added the ability to search data across all the extractions.
- Oxygen Forensic® Maps. Added the ability to merge layers.
- Export. Added the ability to set a passcode to a PDF report.
- Export. Updated support for HTML format.
- Applications. Social Networks. Added data parsing from Threads (294.0.0.27.110) from Android devices and Threads (295.0) from Apple iOS devices.
- Applications. Social Networks. Added data parsing from TanTan (5.8.6.1) from Android devices and TanTan (5.9.7) from Apple iOS devices.
- Applications. Social Networks. Added data parsing from TikTok Lite (30.3.4) from Android devices.
- Applications. Business. Added data parsing from 1Password (8.10.7) from Android devices and 1Password (8.10.9) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Slack (23.07.20.0) from Android devices and Slack (23.08.30) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Threema (5.2.1) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Verizon Messages (9.4.1) from Android devices.
- Applications. Messengers. Updated data parsing from Facebook Messenger (416.0.0.9.76) from Android devices.
- Applications. Social Networks. Updated data parsing from GroupMe (6.61.2) from Android devices and GroupMe (6.61) from Apple iOS devices.
- Applications. Business. Updated data parsing from Xiaomi Notes (6.0.7) from Android devices.

### Changes in version 15.5.1 (July 2023):

- Oxygen Forensic® Extractor. Added the ability to extract hardware keys and decrypt physical dumps of Android devices based on the MT6833 chipsets, running Android OS 10-13 and having File-Based Encryption (FBE).
- Oxygen Forensic® Extractor. Added the ability to extract the full file system and keychain via checkm8 from Apple iOS devices with iOS version 15.7.7.
- Oxygen Forensic® Extractor. Updated the ability to extract the full file system and keychain via iOS Agent from Apple iOS devices with versions 15.0-15.4.1.
- Oxygen Forensic® Extractor. Updated the ability to extract Kik Messenger via Android Agent from Android devices.
- Oxygen Forensic® Extractor. Updated the ability to extract Discord via Android Agent from Android devices.
- Oxygen Forensic® Extractor. Updated the ability to extract data via Android Agent from Huawei devices running HarmonyOS.
- Oxygen Forensic® Cloud Extractor. Updated the ability to authorize in Twitter.
- Oxygen Forensic® Cloud Extractor. Updated the ability to authorize in Google.
- Oxygen Forensic® KeyScout. Added the ability to choose encoding for file names for ZIP archives.
- Oxygen Forensic® KeyScout. Added the ability to download the debugging symbols from the Internet and use them to analyze RAM Memory of unsupported Windows OS versions.
- Oxygen Forensic® KeyScout. Added the ability to collect ICQ data from Windows, macOS and Linux.
- Oxygen Forensic® KeyScout. Added the ability to collect FileZilla data from Windows, macOS and Linux.
- Oxygen Forensic® KeyScout. Added the ability to collect Spark data from Windows.
- Oxygen Forensic® KeyScout. Added the ability to collect Discord data from Linux.
- Oxygen Forensic® KeyScout. Added the ability to collect Discord messages and cookies from Windows and macOS.
- Oxygen Forensic® KeyScout. Added the ability to collect permissions given by macOS applications.
- Oxygen Forensic® KeyScout.Added the ability to collect background application activity from Windows.
- Oxygen Forensic® KeyScout. Added the ability to collect the history of recently opened files from Linux.
- Oxygen Forensic® KeyScout. Added the ability to collect the secret DPAPI password from Windows accounts linked to the Microsoft accounts.

- Oxygen Forensic® KeyScout. Updated the ability to collect Spark data from macOS.
- Oxygen Forensic® KeyScout. Updated the ability to collect data about network interfaces from Windows.
- Oxygen Forensic® KeyScout. Expanded the ability to collect Event logs from Windows. Now data about VPN, BITS, DPAPI, BitLocker and Network Profile can be collected.
- Oxygen Forensic® KeyScout. Improved support for DPAPI of Windows accounts linked to the Microsoft accounts.
- Import. Added the ability to decrypt physical dumps of Android OS devices based on the MT6833 chipset and having TEE Microtrust and F2FSCrypt.
- Import. Added the ability to decrypt physical dumps of Android OS devices based on the MT6833 chipset and having TEE TEEGRIS and F2FSCrypt.
- Import. Added the ability to decrypt physical dumps of Android OS devices based on the MT6768 chipset and having F2FSCrypt and hybrid TEE Kinibi + TEEGRIS.
- Import. Added the ability to decrypt physical dumps of Android OS devices based on the MT6580 chipset and having TEE T6, F2FSCrypt and metadata encryption.
- Import. Added the ability to import and parse UFED backups of CLBX format.
- Maps. Added the Activity Matrix for geo coordinates.
- Timeline. Added a new smart filter that allows showing the events within the timeframe that happened before and after the events with tags.
- Timeline. Added the ability to filter by seconds, minutes and hours in the time filter.
- Applications. Added data parsing from over 1200 new app versions from Apple iOS and Android devices. The total number of supported versions exceeds 39900.
- Applications. Messengers. Added data parsing from AWS Wickr (6.12.4) from Android devices and AWS Wickr (6.14.3) from Apple iOS devices.
- Applications. Web Browsers. Added data parsing from Vivaldi Browser (6.1.3035.110) from Android devices.
- Applications. Business. Added data parsing from Samsung Email (6.1.75.0) from Android devices.
- Applications. Messengers. Updated data parsing from Viber (20.4.3.0) from Android devices and Viber (20.3.1) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Telegram X (0.25.6.1624) from Android devices.
- Applications. Messengers. Updated data parsing from Wickr Me (6.4.2) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from Twitter (9.85.0-release.0) from Android devices.
- Applications. Social Networks. Updated data parsing from Instagram (284.0.0.22.85) from Android devices and Instagram (283.0) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from JusTalk (8.8.10) from Android devices and JusTalk (8.7.25) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from Facebook (421.0.0.33.47) from Android devices and Facebook (421.0) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from LinkedIn (4.1.828.1) from Android devices.
- Applications. Social Networks. Updated data parsing from Omlet Arcade (1.111.9) from Android devices.
- Applications. Web Browsers. Updated data parsing from Safari (14.0) from Apple iOS devices.
- Applications. Web Browsers. Updated data parsing from Firefox (115.0) from Android devices and Firefox (114.4) from Apple iOS devices.
- Applications. Web Browsers. Updated data parsing from Google Chrome (114.0.5735.60) from Android devices and Google Chrome (114.0.5735.124) from Apple iOS devices.
- Applications. Business. Updated data parsing from Gmail (6.0.230611) from Apple iOS devices and Gmail (2023.06.11.542368486) from Android devices.
- Applications. Business. Updated data parsing from Google Keep (5.23.242.01.90) from Android devices and Google Keep (2.2023.24201) from Apple iOS devices.

# Changes in version 15.5.0.200 (June 2023):

- General. Fixed the issue with opening OCPK files.
- Oxygen Forensic® KeyScout. Fixed the issue when WhatsApp encryption keys were not extracted if several WhatsApp accounts were found on the same computer.
- Oxygen Forensic® KeyScout. Fixed the issue when custom paths were ignored during Windows live data collection with the escalated system privileges and unencrypted drives.

# Changes in version 15.5 (May 2023):

- Oxygen Forensic® Extractor. Added the ability to extract hardware keys and decrypt physical dumps of Android OS devices based on the UNISOC T610/T618/T700 chipsets, running Android OS 10-13 and having File-Based Encryption (FBE).
- Oxygen Forensic® Extractor. Added the ability to extract hardware keys and decrypt physical dumps of Android OS devices based on the MT6761 chipsets and having File-Based Encryption (FBE).
- Oxygen Forensic® Extractor. Added the ability to brute force passwords to decrypt physical dumps of Samsung Exynos devices with Full-Disk Encryption (FDE) and upgraded from Android OS 9 to 10-11.
- Oxygen Forensic® Extractor. Added the ability to extract keychain via iOS Agent from Apple iOS devices with iOS versions 15.0 15.5.

- Oxygen Forensic® Extractor. Extended the ability to extract file system via iOS Agent from Apple iOS devices with iOS versions 15.0 15.7.1 and 16.0 16.1.2.
- Oxygen Forensic® Extractor. Added the ability to extract the full file system and keychain via checkm8 from Apple iOS devices with iOS version 15.7.5.
- Oxygen Forensic® Extractor. Added the ability to scale the interface.
- Oxygen Forensic® Extractor. Updated the ability to extract WhatsApp and WhatsApp Business data via Android Agent.
- Oxygen Forensic® Extractor. Updated the ability to extract Twitter data via Android Agent.
- Oxygen Forensic® Extractor. Updated the ability to extract Viber data via Android Agent.
- Oxygen Forensic® Cloud Extractor. Added the ability to extract the information about the Premium account, group and channel join requests, reactions, and blocked users from Telegram.
- Oxygen Forensic® Cloud Extractor. Added free space check before data extraction.
- Oxygen Forensic® Cloud Extractor. Updated the ability to extract avatars from Telegram.
- Oxygen Forensic® Cloud Extractor. Updated the ability to extract Facebook data.
- Oxygen Forensic® Cloud Extractor. Updated the ability to authorize in Tinder.
- Oxygen Forensic® KeyScout. Added the ability to analyze Windows hibernation files.
- Oxygen Forensic® KeyScout. Added the ability to extract BitLocker keys from Windows RAM.
- Oxygen Forensic® KeyScout. Added the ability to analyze Windows drive partitions protected with BitLocker.
- Oxygen Forensic® KeyScout. Added the ability to search files by their content using text strings, hex values and regular expressions.
- Oxygen Forensic® KeyScout. Added the ability to extract known network connections from Windows.
- Oxygen Forensic® KeyScout. Added the ability to extract saved pop-up notifications from macOS.
- Oxygen Forensic® KeyScout. Added the ability to extract the information about the installed Debian Package/Advanced Packaging Tool packages from Linux.
- Oxygen Forensic® KeyScout. Added the ability to extract Briar data from Windows and Linux.
- Oxygen Forensic® KeyScout. Added the ability to extract Notepad++ from Windows and Linux.
- Oxygen Forensic® KeyScout. Extended the ability to extract Telegram data from macOS.
- Oxygen Forensic® KeyScout. Updated the ability to extract user credentials from Windows Credential Manager.
- Oxygen Forensic® KeyScout. Updated the ability to extract Viber data on Windows, macOS and Linux.
- Oxygen Forensic® KeyScout. Updated the ability to extract WhatsApp data on Windows and macOS.
- Import. Added the ability to import and parse Telegram Exported Data.
- Import. Added the ability to decrypt physical dumps of Android OS devices based on the UNISOC T610/T618/T700 chipsets
- Import. Added the ability to decrypt physical dumps of Android OS devices based on the MT6761 chipset.
- Import. Added the ability to decrypt physical dumps of Huawei devices based on the MT6765 chipset and having TEE TRUSTEE and F2FSCrypt.
- Import. Added the ability to decrypt physical dumps of Samsung devices based on the MT6765 chipset having F2FSCrypt and TEE Kinibi.
- Import. Added the ability to decrypt physical dumps of Samsung devices based on the MT6765 chipset having F2FSCrypt and TEE TEEGRIS.
- Export. Added the ability to export the supported devices list.
- Export. Added the ability to exclude media file previews in the section export settings.
- Export. Extended search by file signatures.
- Export. Fixed the issues that occurred during export of geo coordinates to KML and GPX.
- General. Added the integrity check run at the program start.
- Applications. Added data parsing from over 2000 new app versions from Apple iOS and Android devices. The total number of supported versions exceeds 38500.
- Applications. Business. Added data parsing from Samsung Customization Service (2.9.10.0) from Android devices.
- Applications. Business. Added data parsing from Hide It Pro (8.7.1) from Android devices.
- Applications. Business. Added data parsing from Notepad Vault-AppHider (3.2.0\_250ba0164) from Android devices.
- Applications. Business. Added data parsing from Notion (0.6.1121) from Android devices.
- Applications. Business. Added data parsing from Tappsk (2.2.50) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Signal (5.44.3) from Android devices and Signal (6.19) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Telegram (9.6.5) from Android devices and Telegram (9.4.3) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Line (13.5.0) from Android devices and Line (13.5.1) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Zalo (23.04.01) from Android devices and Zalo (23.04.01) from Apple iOS devices
- Applications. Messengers. Updated data parsing from JusTalk (8.8.5) from Android devices and JusTalk (8.7.9) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Messages from Android devices.

- Applications. Social Networks. Updated data parsing from Facebook (413.0.0.30.104) from Android devices and Facebook (414.0) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from LinkedIn (4.1.807) from Android devices and LinkedIn (9.1.315) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from Instagram (261.0) from Apple iOS devices.
- Applications. Business. Updated data parsing from Zoho Mail (2.6.4) from Android devices and Zoho Mail (2.8.6) from Apple iOS devices.
- Applications. Business. Updated data parsing from Calculator# (3.3.5) from Apple iOS devices.
- Applications. Business. Updated data parsing from Gmail (2023.04.16.527073575.Release) from Android devices and Gmail (6.0.230417) from Apple iOS devices.
- Applications. Web Browsers. Updated data parsing from Phoenix Browser (12.8.2.4423) from Android devices.
- Applications. Multimedia. Updated data parsing from Shazam (15.32) from Apple iOS devices.

### Changes in version 15.4 (April 2023):

- Oxygen Forensic® Extractor. Added the ability to brute force passcodes to decrypt physical dumps of Samsung Exynos devices with the pre-installed Android OS 9 and Full-Disk Encryption (FDE).
- Oxygen Forensic® Extractor. Added the ability to extract Google Chrome browser data via Android Agent from unlocked Android devices.
- Oxygen Forensic® Extractor. Added the ability to extract the full file system and keychain via checkm8 from Apple iOS devices with version 15.7.4.
- Oxygen Forensic® Extractor. Added the ability to select different exploits for the data extraction via iOS Agent.
- Oxygen Forensic® Extractor. Added the Favourites section.
- Oxygen Forensic® Extractor. The old version of Extractor is removed from the installation package. Now it can be found only in the customer area.
- Oxygen Forensic® Cloud Extractor. Added the ability to extract Huawei Health data.
- Oxygen Forensic® Cloud Extractor. Added the ability to extract recent actions of Telegram group chats available to the group admins.
- Oxygen Forensic® Cloud Extractor. Added the ability to extract Telegram group chats with enabled topics.
- Oxygen Forensic® Cloud Extractor. Added the ability to extract collectible usernames from Telegram.
- Oxygen Forensic® Cloud Extractor. Updated the ability to extract Telegram tokens from Apple iOS devices.
- Oxygen Forensic® Cloud Extractor. Updated the ability to authorize in Slack.
- Oxygen Forensic® Cloud Extractor. Updated the ability to authorize in Discord via QR code.
- Oxygen Forensic® Cloud Extractor. Updated the ability to authorize in Viber Cloud.
- Oxygen Forensic® KeyScout. Added the ability to analyze Windows RAM images in padded RAW and Crash Dump (DMP) formats while analyzing drives or drive images.
- Oxygen Forensic® KeyScout. Added the ability to extract data from drives and images having the Logical Volume Manager partitions.
- Oxygen Forensic® KeyScout. Added the ability to extract and filter files by size.
- Oxygen Forensic® KeyScout. Added the ability to extract a web version of WhatsApp from Chromium, Microsoft Edge, Brave and Vivaldi browsers from Windows, macOS and Linux.
- Oxygen Forensic® KeyScout. Added the ability to extract a web version of Slack from Chromium, Brave and Vivaldi browsers from Windows, macOS and Linux.
- Oxygen Forensic® KeyScout. Added the ability to extract a web version of Instagram from Chromium, Microsoft Edge, and Brave browsers from Windows, macOS and Linux.
- Oxygen Forensic® KeyScout. Added the ability to extract AnyDesk data from Windows, macOS and Linux.
- Oxygen Forensic® KeyScout. Added the ability to extract Find My data from macOS.
- Oxygen Forensic® KeyScout. Added the ability to extract the list of system user accounts and groups from macOS.
- Oxygen Forensic® KeyScout. Added the ability to extract VPN connection settings from Windows.
- Oxygen Forensic® KeyScout. Updated the ability to extract Amazon Photos from Windows and macOS.
- Oxygen Forensic® KeyScout. Updated the ability to extract the information about Bluetooth devices from macOS.
- Import. Added the ability to import and parse iFlight drone logs.
- Import. Added the ability to import and parse Berla iVe backups.
- Import. Added the ability to import and parse MD-Next physical extractions of Android devices.
- Import. Added the ability to import and decrypt dumps made from Samsung devices based on the MT6769V chipset.
- Import. Added the ability to import and decrypt dumps made from devices based on the MT6765 chipset, having TEE Kinibi and F2FS.
- Import. Added the ability to import and decrypt dumps made from devices based on the MT6765 chipset, having TEE Microtrust and F2FSCrypt with metadata\_encryption.
- Import. Added the ability to import and decrypt dumps of MTK devices having FDE and the xchacha12,aes-adiantum-plain64 algorithm.

- General. Added the ability to import the list of values for ignored labels in the Contacts section.
- Export. Added the ability to enter file signatures while filtering files.
- Applications. Added data parsing from over 1000 new app versions from Apple iOS and Android devices. The total number of supported versions exceeds 36300.
- Applications. Messengers. Added data parsing from Session (1.16.1) from Android devices.
- Applications. Messengers. Added data parsing from Telegram Web (9.5.6) from Android devices.
- Applications. Business. Added data parsing from iScanner (3.87.7) from Android devices and iScanner (5.8) from Apple iOS devices.
- Applications. Business. Added data parsing from Notion (1.7.96) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Zalo (23.02.02) from Android devices and Zalo (23.23.01) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from WhatsApp (2.23.4.79) from Android devices and WhatsApp (22.24.81) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Telegram (9.5.6) from Android devices and Telegram (9.3.2) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Viber (19.5.1) from Apple iOS devices and Viber (19.5.4.0) from Android devices.
- Applications. Messengers. Updated data parsing from Skype (8.95.0.412) from Android devices Skype (8.95.1) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from JusTalk (8.7.5) from Android devices and JusTalk (8.7.3) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Facebook Messenger Lite (329.0.0.8.106) from Android devices.
- Applications. Messengers. Updated data parsing from Phone By Google (99.0.512778607) from Android devices.
- Applications. Messengers. Updated data parsing from BOTIM (2.15.4) from Android devices.
- Applications. Messengers. Updated data parsing from Briar (1.4.20) from Android devices.
- Applications. Social Networks. Updated data parsing from Facebook (405.0.0.23.72) from Android devices and Facebook (396.0) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from Tinder (14.5.0) from Android devices and Tinder (14.4.0) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from Skout (6.59.0) from Android devices.
- Applications. Social Networks. Updated data parsing from Twitter (9.73.0-release.0) from Android devices.
- Applications. Social Networks. Updated data parsing from Zenly (5.9.1) from Android devices.
- Applications. Social Networks. Updated data parsing from Twitter (9.42) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from LinkedIn (9.1.299) from Apple iOS devices.
- Applications. Business. Updated data parsing from Gmail (2023.03.05.518353126.Release) from Android devices and Gmail (6.0.230305) from Apple iOS devices.
- Applications. Business. Updated data parsing from Temp Mail (3.13) from Android devices and Temp Mail (3.1.0) from Apple iOS devices.
- Applications. Web Browsers. Updated data parsing from Firefox (106.0) from Apple iOS devices.
- Applications. Web Browsers. Updated data parsing from Google Chrome (110.0.5481.154) from Android devices.

### Changes in version 15.3.1 (March 2023):

- Oxygen Forensic® Extractor. Added the ability to extract the full file system via iOS Agent from iOS devices running versions 15.0 15.7.1 and 16.0 16.1.2.
- Oxygen Forensic® Cloud Extractor. Updated the authorization algorithm in WhatsApp QR Multi-device.
- Oxygen Forensic® Cloud Extractor. Updated the ability to extract attachments from WhatsApp QR Multi-device.
- Oxygen Forensic® Cloud Extractor. Updated the ability to authorize in WhatsApp Cloud.
- Import. Added the ability to decrypt physical dumps of devices based on the MT6739 chipset and having TEE Trusty and F2FSCrypt.
- Import. Added the ability to decrypt physical dumps of devices based on the MT6739 chipset and having TEE Kinibi and F2FSCrypt.
- Oxygen Forensic® KeyScout. Added the ability to extract KnownDLLs from Windows.
- Oxygen Forensic® KeyScout. Added the ability to extract MUICache from Windows.
- Oxygen Forensic® KeyScout. Added the ability to extract Vivaldi data from Windows, macOS and Linux.

# Changes in version 15.3 (February 2023):

- Oxygen Forensic® Extractor. Added the ability to extract hardware keys and decrypt data from Samsung devices based on the Mediatek Helio G80 chipset and having TEE TEEGRIS.
- Oxygen Forensic® Extractor. Added the ability to extract hardware keys and decrypt data from Huawei devices based on the Mediatek MT6765 chipset and running Android OS 10.
- Oxygen Forensic® Extractor. Added the ability to extract hardware keys and decrypt data from Motorola devices based on the MediaTek MT6765 chipset, having FBE and running Android OS 10-12.

- Oxygen Forensic® Extractor. Added the ability to extract hardware keys and decrypt data from Huawei devices based on the Qualcomm SDM450 chipset.
- Oxygen Forensic® Extractor. Added the ability to extract the full file system and keychain via iOS Agent from iOS devices running iOS versions 15.0 15.4.1.
- Oxygen Forensic® Extractor. Added the ability to extract the full file system and keychain via checkm8 from Apple iOS devices based on the A10 chipset and running iOS 14 and 15 without disabling the screen lock
- Oxygen Forensic® Extractor. Added the ability to extract the full file system and keychain via checkm8 from Apple iOS devices based on the A7-A10 chipsets and running iOS versions 12.5.7 and 15.7.3.
- Oxygen Forensic® Extractor. Added the ability to extract additional information from Firefox browser via Android Agent: collections, saved cards, logins and passwords and addresses.
- Oxygen Forensic® Extractor. Added the ability to extract Telegram group chats with enabled topics via Android Agent.
- Oxygen Forensic® Extractor. Added the dark theme.
- Oxygen Forensic® Cloud Extractor. Added the ability to extract data from LastPass via login and password or token.
- Oxygen Forensic® Cloud Extractor. Updated the ability to authorize in Huawei services.
- Oxygen Forensic® Cloud Extractor. Updated the ability to authorize in MiFit.
- Oxygen Forensic® Cloud Extractor. Updated data extraction from Google Chrome.
- Oxygen Forensic® Cloud Extractor. Updated data extraction from Google Home.
- Oxygen Forensic® Cloud Extractor. Updated data extraction from Google My Activity.
- Oxygen Forensic® Cloud Extractor. Updated extraction of Wi-Fi points from Android Cloud Data.
- Oxygen Forensic® KeyScout. Added extended analysis of live RAM that now includes memory pages from pagefiles.
- Oxygen Forensic® KeyScout. Added the extended information about data search progress.
- Oxygen Forensic® KeyScout. Added the ability to extract Background Intelligent Transfer Service (BITS) data on Windows.
- Oxygen Forensic® KeyScout. Added the ability to collect diagnostic data from Windows.
- Oxygen Forensic® KeyScout. Added the ability to collect the information about running processes on macOS and Linux during live system extraction.
- Oxygen Forensic® KeyScout. Added the ability to collect ARP cache on macOS and Linux during live system extraction.
- Oxygen Forensic® KeyScout. Added the ability to extract Dock elements from macOS.
- Oxygen Forensic® KeyScout. Added the ability to extract the history of commands entered in the terminal on Linux.
- Oxygen Forensic® KeyScout. Added the ability to extract the history of apt usage on Linux.
- Oxygen Forensic® KeyScout. Added the ability to extract the history of Vim usage on Linux.
- Oxygen Forensic® KeyScout. Added the ability to extract Brave data from Windows, macOS and Linux.
- Oxygen Forensic® KeyScout. Added the ability to extract encrypted messages from WhatsApp Web used in Google Chrome, Microsoft Edge and Opera browsers from Windows, macOS and Linux.
- Oxygen Forensic® KeyScout. Updated the search profiles.
- Oxygen Forensic® KeyScout. Updated the ability to extract the information about email recipients from Microsoft Exchange Server on Windows.
- Oxygen Forensic® KeyScout. Updated the ability to extract Microsoft Teams data on Windows.
- Oxygen Forensic® KeyScout. Updated the ability to extract Viber data on Windows, macOS and Linux.
- Oxygen Forensic® KeyScout. Updated the ability to extract Apple Messages data on macOS.
- Import. Added the ability to import and parse Tinder archives.
- Import. Added the ability to import and decrypt physical dumps of Huawei devices based on the Mediatek MT6765 chipset.
- Import. Added the ability to import and decrypt physical dumps of Huawei devices based on the Qualcomm Snapdragon 450 (SDM450) chipset.
- Import. Added the ability to import and decrypt physical dumps of Samsung having TEE TEEGRIS.
- Import. Significantly accelerated import of DAR archives.
- Export. Added the ability to export email messages to RSMF format.
- Export. Added the ability to export contact avatars to RSMF format.
- Export. Added the ability to exclude file duplicates based on hash values.
- Export. Added the ability to convert exported files to the following JPEG formats: HEIC, KTX, RAW, PSD
- General. Updated the ability to decrypt Signal backups from Android devices including backups extracted via Android Agent.
- General. Added the ability to add links to other fields and categories in Applications.
- Applications. Added data parsing from over 500 new app versions from Apple iOS and Android devices. The total number of supported versions exceeds 35200.
- Applications. OS Artifacts. Added data parsing from Apple iOS devices from the following folder:/private/var/mobile/Library/Biome/streams/public.
- Applications. Messengers. Added data parsing from BOTIM (2.15.1) from Android devices and BOTIM (2.12.0) from Apple iOS devices.
- Applications. Messengers. Added data parsing from GB WhatsApp (17.10) from Android devices.

- Applications. Messengers. Added data parsing from OB WhatsApp (38) from Android devices.
- Applications. Messengers. Added data parsing from FM WhatsApp (9.45) from Android devices.
- Applications. Social Networks. Added data parsing from BeReal (0.27.0) from Apple iOS devices.
- Applications. Social Networks. Added data parsing from Moj (23.1.0) from Apple iOS devices.
- Applications. Social Networks. Added data parsing from Tiki (3.16.0) from Apple iOS devices.
- Applications. Web Browsers. Added data parsing from Microsoft Bing (23.8.40122730) from Android devices.
- Applications. Messengers. Updated data parsing from ICQ (22.10.2(824797)) from Android devices and ICQ (22.10.0) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from iMe Messenger (9.0.2) from Android devices and iMe Messenger (9.0.2) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Viber (19.3.1.0) from Android devices and Viber (19.3.1) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Skype (8.93.0.404) from Android devices and Skype (8.93.1) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Apple Messages (16.0.2) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from WhatsApp (22.23.77) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Discord (162.0) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from SKOUT (6.57.0) from Android devices and SKOUT (6.57.0) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from Zenly (5.9.0) from Android devices and Zenly (5.8.2) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from Twitter (9.73.0-release.0) from Android devices.
- Applications. Social Networks. Updated data parsing from Life360 (22.11.1) from Android devices.
- Applications. Business. Updated data parsing from Email.cz (2.4.13) from Android devices and Email.cz (4.15.0) from Apple iOS devices.
- Applications. Business. Updated data parsing from Gmail (2023.01.08.501398065.Release) from Android devices and Gmail (6.0.230109) from Apple iOS devices.
- Applications. Business. Updated data parsing from Yahoo Mail (7.6.1) from Apple iOS devices.
- Applications. Web Browsers. Updated data parsing from Firefox (106) from Apple iOS devices.
- Applications. Web Browsers. Updated data parsing from Brave (1.45) from Apple iOS devices.

### Changes in version 15.2 (December 2022):

- Oxygen Forensic® Extractor. Added the ability to brute force passcodes to decrypt physical dumps of Samsung Exynos devices with Android OS 10-11 and File-Based Encryption (FBE).
- Oxygen Forensic® Extractor. Added the ability to extract hardware keys and decrypt physical dumps of Xiaomi Redmi 6 and Xiaomi Redmi 6A devices.
- Oxygen Forensic® Extractor. Added the ability to extract the full file system and keychain from iOS devices with versions 14.4 14.5.1 via iOS Agent.
- Oxygen Forensic® Extractor. Added the ability to extract the full file system and keychain via checkm8 from iPhone 6s and iPhone SE devices without disabling the screen lock.
- Oxygen Forensic® Extractor. Updated the ability to extract full file system and keychain from iPhone 5s and iPad Air devices with iOS versions 12.2 12.5.6.
- Oxygen Forensic® Extractor. Added the ability to extract Firefox from unlocked Android devices via Android Agent.
- Oxygen Forensic® Extractor. Added the ability to extract RCS messages from unlocked Android devices via Android Agent.
- Oxygen Forensic® Extractor. Added the Desktop.
- Oxygen Forensic® Extractor. Extended the Tools menu.
- Oxygen Forensic® Extractor. Updated the ability to extract Viber calls from unlocked Android devices via Android Agent.
- Oxygen Forensic® Cloud Extractor. Added the ability to extract data from Runtastic.
- Oxygen Forensic® Cloud Extractor. Added the ability to decrypt WhatsApp.crypt15 backups.
- Oxygen Forensic® Cloud Extractor. Added the ability to calculate OCB backup hash after extraction.
- Oxygen Forensic® Cloud Extractor. Updated the ability to authorize in Telegram via tokens extracted from Android devices.
- Oxygen Forensic® Cloud Extractor. Updated the ability to authorize in Runkeeper via login and password
- Oxygen Forensic® KeyScout. Added the Encrypted data tab.
- Oxygen Forensic® KeyScout. Added display of privilege levels on macOS.
- Oxygen Forensic® KeyScout. Added the ability to extract DPAPI keys of the authorized user from Windows volatile memory.
- Oxygen Forensic® KeyScout. Added the ability to collect DNS cache from Windows during live data extraction.
- Oxygen Forensic® KeyScout. Added the ability to collect ARP cache from Windows during live data extraction.
- Oxygen Forensic® KeyScout. Added the ability to extract Firewall rules on Windows.

- Oxygen Forensic® KeyScout. Added support for XFS file system.
- Oxygen Forensic® KeyScout. Added the ability to extract Cron tasks from Linux.
- Oxygen Forensic® KeyScout. Added the ability to extract SSH keys from macOS and Linux.
- Oxygen Forensic® KeyScout. Added the ability to extract information about system accounts and groups from Linux.
- Oxygen Forensic® KeyScout. Added the ability to extract extended system information about Linux.
- Oxygen Forensic® KeyScout. Added the extended information about data saving.
- Oxygen Forensic® KeyScout. Updated the ability to extract Google Chrome browser from Windows, macOS and Linux.
- Oxygen Forensic® KeyScout. Updated the ability to extract cache from apps based on the Blink engine.
- Oxygen Forensic® KeyScout. Updated the ability to extract Facebook Messenger from Windows and macOS.
- Import. Added the ability to import and decrypt physical dumps of Android devices with the MT6737 chipset, TEE Trusty and having FDE.
- Import. Added the ability to import and decrypt physical dumps of Android devices with the MT6765 chipset, TEE Microtrust and having FDE.
- Import. Added the ability to import UFDR-protected and password protected UFDR backups with the known password.
- Import. Significantly accelerated import of 7z archives.
- Export. Added the ability to set a time zone for all the devices in one case.
- Export. Added the ability to export metadata from Search section.
- Export. Added the ability to export general information about apps.
- Export. Significantly accelerated data export to RSMF format.
- General. Added the ability to sort data by several columns.
- Applications. Added data parsing from over 300 new app versions from Apple iOS and Android devices. The total number of supported versions exceeds 34,600.
- Applications. Business. Added data parsing from Xiaomi Notes (5.1.9) from Android devices.
- Applications. Business. Added data parsing from SafeCalc (2.2.0) from Apple iOS devices.
- Applications. Messengers. Added data parsing from Xabber Beta (3.0.2(824)) from Android devices.
- Applications. Messengers. Added data parsing from JusTalk (8.6.2) from Android devices.
- Applications. Social Networks. Added data parsing from IRL (4.34.0) from Android devices.
- Applications. Social Networks. Added data parsing from Life360 (22.12.1) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Facebook Messenger (384.0.0.18.104) from Android devices and Facebook Messenger (339.0) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from WhatsApp (22.16.77) from Apple iOS devices and WhatsApp backup from Android devices.
- Applications. Messengers. Updated data parsing from TamTam (2.31.1) from Android devices and TamTam (3.9) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Viber (18.9.2.0) from Android devices and Viber (18.9.0) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Telegram (9.1.3) from Android devices.
- Applications. Messengers. Updated data parsing from Telegram X (0.25.1.1560) from Android devices.
- Applications. Messengers. Updated data parsing from Plus Messenger (9.0.2.0) from Android devices.
- Applications. Messengers. Updated data parsing from ICQ (22.10.2(824797)) from Android devices.
- Applications. Social Networks. Updated data parsing Instagram (261.0.0.21.111) from Android devices and Instagram (261.0) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing Twitter (9.61.0-release.0) from Android devices and Twitter (9.34.6) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from OK (22.11.28) from Android devices and OK (9.58) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from VK (8.7) from Android devices.
- Applications. Social Networks. Updated data parsing Zenly (5.7.0) from Apple iOS devices.
- Applications. Web Browsers. Updated data parsing from Microsoft Edge (103.0.1264.77) from Apple iOS
- Applications. Web Browsers. Updated data parsing from Google Chrome (106.0.5249.92) from Apple iOS devices.
- Applications. Business. Updated data parsing from GMail (2022.10.30.488439685.Release) from Android devices and GMail (6.0.221030) from Apple iOS devices.
- Applications. Fitness. Updated data parsing from Apple Health (12.5.6) from Apple iOS devices.
- Applications. Multimedia. Updated data parsing from Apple Photos (16.0.2) from Apple iOS devices.

### Changes in version 15.1 (November 2022):

- Oxygen Forensic® Extractor. Added the ability to bypass screen lock and decrypt data from Android devices having TEE Trusty, File-Based-Encryption (FBE) and based on the following MTK chipsets: MT6765, MT6580.
- Oxygen Forensic® Extractor. Added the ability to bypass screen lock and decrypt data from MTK-based Android devices having TEE Kinibi and full-disk encryption (FDE).

- Oxygen Forensic® Extractor. Added the ability to extract encryption keys stored in the Android Keystore of Android devices based on the Qualcomm chipsets: MSM8917, MSM8937, MSM8940, MSM8953.
- Oxygen Forensic® Extractor. Added the ability to extract data from iPhone 14, iPhone 14 Plus, iPhone 14 Pro and iPhone 14 Pro Max via iTunes backup procedure.
- Oxygen Forensic® Extractor. Added the interface improvements to the selective extraction of iOS devices using the checkm8, iOS Agent and SSH methods.
- Oxygen Forensic® Extractor. Added selective chat extraction from Discord via Android Agent.
- Oxygen Forensic® Extractor. Redesigned the extraction method for Spreadtrum-based Android devices.
- Oxygen Forensic® Extractor. Updated the ability to extract keychain from Apple iOS devices with versions 14.0-14.3 via iOS Agent.
- Oxygen Forensic® Extractor. Updated data extraction from Discord via Android Agent.
- Oxygen Forensic® Extractor. Updated WhatsApp files extraction via Android Agent.
- Oxygen Forensic® Extractor. Updated the ability to extract the full file system and keychain via checkm8 from iOS devices with iOS versions 12-14.
- Oxygen Forensic® Cloud Extractor. Added the ability to extract the last view date of Google Drive files.
- Oxygen Forensic® Cloud Extractor. Added the ability to set the path to OCB files in the Account owner information window.
- Oxygen Forensic® Cloud Extractor. Updated the Help menu.
- Oxygen Forensic® KeyScout. Added the ability to decrypt passwords, tokens and cookies collected from other user profiles and computer images.
- Oxygen Forensic® KeyScout. Added the ability to select drives and partitions for live extraction.
- Oxygen Forensic® KeyScout. Added the ability to view extended information about data collection and saving.
- Oxygen Forensic® KeyScout. Improved the interface of data search settings.
- Oxygen Forensic® KeyScout. Improved the interface of the log window.
- Oxygen Forensic® KeyScout. Added the ability to collect the Windows Diagnostic Infrastructure (WDI) artifact on Windows.
- Oxygen Forensic® KeyScout. Added the ability to collect Systemd logs on Linux.
- Oxygen Forensic® KeyScout. Added the ability to collect Microsoft To Do app on Windows.
- Oxygen Forensic® KeyScout. Added the ability to collect Mail and Calendar app on Windows.
- Oxygen Forensic® KeyScout. Updated the ability to collect the Most Recently Used (MRU) artifact on Windows.
- Oxygen Forensic® KeyScout. Updated the ability to collect the WMI persistence artifact on Windows.
- Oxygen Forensic® KeyScout. Updated the ability to collect the System events artifact on macOS.
- Oxygen Forensic® KeyScout. Updated the ability to collect Microsoft Outlook app on Windows.
- Oxygen Forensic® KeyScout. Updated the ability to collect Signal app on Windows, macOS and Linux.
- Import. Added the ability to import and parse Microsoft Outlook Data Files of .pst/.ost formats.
- Import. Added the ability to import and parse Snapchat My Data.
- Import. Added the ability to import and parse a new format of Snapchat Warrant Returns.
- Import. Added the ability to brute force the passcode for the additional MainSpace of Huawei devices based on Kirin chipsets.
- Import. Added the ability to decrypt images of Android devices based on the Mediatek MT 6580 and MT6765 chipsets and having TEE Trusty and F2FSCrypt.
- Import. Added the ability to decrypt images of Android devices based on the Mediatek MT6739 chipset and having TEE Kinibi and full-disk encryption (FDE).
- Import. Added the ability to decrypt images of Xiaomi and Poco devices based on the Mediatek MT6769T chipset and having file-based encryption (FBE).
- Faces. Added the ability to categorize faces from video frames in the Files section.
- Faces. Added the ability to selectively categorize faces in the Files section.
- Oxygen Forensic® Viewer. Added the ability to assign Project VIC categories to files and search by Project VIC hash sets.
- Export. Added the ability to export metadata to Load file format from the Files section.
- Applications. Added data parsing from over 400 new app versions from Apple iOS and Android devices. The total number of supported versions exceeds 34300.
- Applications. Added the ability to decrypt Briar, Signal, Silent Phone and ProtonMail data with the encryption keys from the Android Keystore of Android devices based on the Qualcomm chipsets: MSM8917, MSM8937, MSM8940, and MSM8953.
- Applications. Messengers. Added data parsing from Briar (1.2.7) from Android devices.
- Applications. Messengers. Added data parsing from JusTalk (8.5) from Apple iOS devices.
- Applications. Social Networks. Added data parsing from IRL (4.38.0) from Apple iOS devices.
- Applications. Business. Added data parsing from Zoho Mail (2.4.33) from Android devices and Zoho Mail (2.7.6) from Apple iOS devices.
- Applications. Business. Added data parsing from AppLock (5.5.2) from Android devices.
- Applications. Business. Added data parsing from FileSafe (1.4) from Android devices.
- Applications. Multimedia. Added data parsing from Default Sound Recorder (10.0.1.560) from Android devices.
- Applications. Multimedia. Added data parsing from Shazam (15.21) from Apple iOS devices.
- Applications. Web Browsers. Added data parsing from Microsoft Bing (7.0.9) from Apple iOS devices.

- Applications. Messengers. Updated data parsing from Telegram (9.0.2) from Apple iOS devices and Telegram (9.0.2) from Android devices.
- Applications. Messengers. Updated data parsing from Brosix (4.7.2) from Android devices and Brosix (4.7.3) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Viber (18.6.0) from Apple iOS devices and Viber (18.6.1.0) from Android devices.
- Applications. Messengers. Updated data parsing from KakaoTalk (9.8.8) from Android devices and KakaoTalk (9.9.7) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from WhatsApp (22.21.75) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Signal (5.57) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from ChatSecure (5.0.4) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from Facebook (384.0) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from Instagram (255.1) для Apple iOS devices.
- Applications. Social Networks. Updated data parsing from Clubhouse (22.09.29) from Apple iOS devices
- Applications. Business. Updated data parsing from Gmail (2022.10.02.480729202.Release) from Android devices and Gmail (6.0.220918) from Apple iOS devices.
- Applications. Business. Updated data parsing from Google Keep (5.22.402.02.90) from Android devices and Google Keep (2.2022.40201) from Apple iOS devices.
- Applications. Business. Updated data parsing from Google Translate (6.46.0) from Apple iOS devices
- Applications. Business. Updated data parsing from Yahoo Mail (7.0.1) from Apple iOS devices.
- Applications. Business. Updated data parsing from Box (5.7.9) from Apple iOS devices.
- Applications. Web Browsers. Updated data parsing from Google Chrome (106.0.5249.79) from Android devices and Google Chrome (106.0.5249.92) from Apple iOS devices.
- Applications. Web Browsers. Updated data parsing from Brave Browser (1.42) from Apple iOS devices.
- Applications. Multimedia. Updated data parsing from Google Photos (6.11.0.480209282) from Android devices and Google Photos (6.11) from Apple iOS devices.

### Changes in version 15.0 (September 2022):

- Oxygen Forensic® Extractor. Added the ability to extract and decrypt data from Xiaomi devices based on the Helio G88 (MT6768) chipset and having FBE (F2FSCrypt). Passcode brute force is available.
- Oxygen Forensic® Extractor. Added the ability to extract and decrypt data from Xiaomi devices based on the Helio G90T (MT6785) chipset and having FBE (Ext4Crypt). Passcode brute force is available.
- Oxygen Forensic® Extractor. Added the ability to extract encryption keys stored in the Android Keystore of Huawei devices based on the Qualcomm chipsets: MSM8917, MSM8937, and MSM8940.
- Oxygen Forensic® Extractor. Added the ability to extract Kik Messenger data from unlocked Android devices via Android Agent.
- Oxygen Forensic® Extractor. Added the ability to extract the full file system and keychain data via checkm8 vulnerability from unlocked Apple iOS devices running iOS 15.7.
- Oxygen Forensic® Extractor. Added the ability to extract the full file system and keychain data via checkm8 vulnerability from unlocked iPhone 5S, iPhone 6, iPhone 6 Plus, iPad Air running iOS 12.5.6.
- Oxygen Forensic® Extractor. Added the ability to extract the full file system via iOS Agent from unlocked iPhone 7 and iPhone 7 Plus with the iOS versions 15.0 15.1.1.
- Oxygen Forensic® Extractor. Improved selective extraction from iOS devices using the checkm8, iOS Agent and SSH methods. Now any installed app can be chosen for selective extraction.
- Oxygen Forensic® Extractor. Redesigned the SIM card extraction method.
- Oxygen Forensic® Cloud Extractor. Updated data extraction from Box.
- Oxygen Forensic® Cloud Extractor. Updated the authorization algorithm in OnlyFans.
- Oxygen Forensic® Cloud Extractor. Updated extraction of Lists from Twitter.
- Oxygen Forensic® KeyScout. Added the ability to extract the list of network connections from Windows volatile memory.
- Oxygen Forensic® KeyScout. Added the ability to extract the list of loaded modules from Windows volatile memory.
- Oxygen Forensic® KeyScout. Added the ability to extract the list of open files from Windows volatile memory.
- Oxygen Forensic® KeyScout. Added the ability to extract pre-installed apps from macOS 13.
- Oxygen Forensic® KeyScout. Added the ability to extract Stage Manager from macOS 13.
- Oxygen Forensic® KeyScout. Added the ability to extract CryptnetURLCache from Windows.
- Oxygen Forensic® KeyScout. Added the ability to extract WMI persistence from Windows.
- Oxygen Forensic® KeyScout. Updated the ability to collect Microsoft Edge data from Windows.
- Oxygen Forensic® KeyScout. Updated the ability to collect Tor Browser data from Windows, macOS and Linux.
- Oxygen Forensic® KeyScout. Updated the program interface.
- Import. Added the ability to decrypt physical dumps of Xiaomi devices based on the MT6768 and MT6785 chipsets.
- Import. Added the ability to decrypt physical dumps of Oppo devices based on the MT6765 chipset.
- Import. Added parsing of Semantic Location History from Google Takeout.
- Faces. Added the ability to add faces from video frames from the File section to face sets.

- Faces. Added multithread facial categorization using GPU and CPU.
- Timeline. Added the ability to compare device call and message logs with CDR data.
- Files. Added extraction and visualization of metadata from MS Office, OpenOffice and PDF files.
- File Viewer. Added the ability to open archive files of RAR, ZIP, 7Z, TAR and other formats.
- Search. Added the ability to search in file metadata.
- General. Added the ability to select the path to the device database and temporary files storage at the program installation.
- General. Added the ability to hide tags from the Add tag form.
- Export. Added the ability to export metadata from MS Office, OpenOffice and PDF files to data reports.
- Export. Added the ability to export chats from the main Export menu.
- Export. Added the ability to export SVG images from the Snapshots and Social Graph sections to HTML and PDF formats.
- Applications. Added data parsing from over 600 new app versions from Apple iOS and Android devices. The total number of supported versions exceeds 33800.
- Applications. Added the ability to decrypt Signal, Silent Phone and ProtonMail data with the encryption keys from the Android Keystore of Huawei devices based on the Qualcomm chipsets: MSM8917, MSM8937, and MSM8940.
- Applications. Business. Added data parsing from Temp Mail (3.08) from Android devices and Temp Mail (3.07) from Apple iOS devices.
- Applications. Business. Added data parsing from Huawei Notes (9.1.5.360) from Android devices.
- Applications. Business. Added data parsing from Calculator+ (3.0) from Apple iOS devices.
- Applications. Business. Added data parsing from Calculator# (3.2.10) from Apple iOS devices.
- Applications. Social Networks. Added data parsing from Bigo Live (5.28.0) from Apple iOS devices.
- Applications. Messengers. Added data parsing from Phone by Google (84.0.458363558) from Android devices.
- Applications. Messengers. Added data parsing from WhatsApp backup (crypt15) from Android devices and WhatsApp (2.22.15.74) from Android devices.
- Applications. Messengers. Updated data parsing from Zalo (22.06.02) from Android devices and Zalo (22.07.02) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Facebook Messenger (375.0.0.6.104) from Android devices and Facebook Messenger (375.0) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Skype (8.86.0.407) from Android devices.
- Applications. Messengers. Updated data parsing from Rocket.Chat (4.29.0) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Signal (5.49) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Skype (8.87) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from TamTam (3.8) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Anonchat (4.12.0) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Discord (141.0) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Google Chat (1.0.170) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from GroupMe (5.57.1) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from Grindr (8.15.1) from Android devices and Grindr (8.16.0) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from Instagram (249.0.0.20.105) from Android devices and Instagram (249.0) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from OK (22.8.29) from Android devices and OK (9.46) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from Snapchat (11.88.0) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from VK (7.35) from Android devices.
- Applications. Business. Updated data parsing from Google Tasks (2022.08.15.467567646.0-release) from Android devices and Google Tasks (1.61) from Apple iOS devices.
- Applications. Business. Updated data parsing from Google Keep (2.2022.32201) from Apple iOS
- Applications. Business. Updated data parsing from Craigslist (1.16.6) from Apple iOS devices.
- Applications. Business. Updated data parsing from Gallery Vault (2.5.7) from Apple iOS devices.
- Applications. Business. Updated data parsing from GMail (6.0.220801) from Apple iOS devices.
- Applications. Business. Updated data parsing from Google Voice (22.31) from Apple iOS devices.
- Applications. Business. Updated data parsing from Microsoft OneDrive (6.62.1) from Android devices.
- Applications. Business. Updated data parsing from Microsoft Teams (4.14.0) from Apple iOS devices.
- Applications. Web Browsers. Updated data parsing from Google Chrome (104.0.5112.99) from Apple iOS devices and Google Chrome (102.0.5005.99) from Android devices.
- Applications. Multimedia. Updated data parsing from Google Photos (6.4) from Apple iOS devices.
- Applications. Drones. Updated data parsing from Litchi for DJI Drones (2.14.2) from Apple iOS devices.

### Changes in version 14.6 (July 2022):

- Oxygen Forensic® Extractor. Added the ability to extract the full file system and keychain data via checkm8 vulnerability from Apple iOS devices running iOS 15.6 Beta.
- Oxygen Forensic® Extractor. Added the ability to extract the full file system and keychain data via checkm8 vulnerability from iPhone 8, iPhone 8 Plus, and iPhone X running iOS 16.0 Beta.

- Oxygen Forensic® Extractor. Added the ability to extract and decrypt data from Xiaomi devices based on the MT6765 chipset and having FBE (File-Based Encryption). Passcode brute force is available.
- Oxygen Forensic® Extractor. Added the ability to extract the full file system via iOS Agent from unlocked Apple devices with the iOS versions 15.0 15.1.1.
- Oxygen Forensic® Extractor. Added selective chat extraction from WhatsApp and WhatsApp Business from unlocked Android devices via Android Agent.
- Oxygen Forensic® Extractor. Added the Notifications panel.
- Oxygen Forensic® Extractor. Added the Tools menu.
- Oxygen Forensic® Extractor. Added the ability to launch an old version of Oxygen Forensic® Extractor from a new Oxygen Forensic® Device Extractor.
- Oxygen Forensic® Extractor. Redesigned the method of Android extraction via Wi-Fi.
- Oxygen Forensic® Extractor. Redesigned the method of physical extraction of memory cards.
- Oxygen Forensic® Extractor. Redesigned the method of DJI drone extraction.
- Oxygen Forensic® Extractor. Updated the ability to extract Telegram data from unlocked Android devices via Android Agent.
- Oxygen Forensic® Extractor. Updated the ability to extract Line data from unlocked Android devices via Android Agent.
- Oxygen Forensic® Cloud Extractor. Added the ability to extract OnlyFans data.
- Oxygen Forensic® Cloud Extractor. Added the information about available backups in the WhatsApp Google Backup service.
- Oxygen Forensic® Cloud Extractor. Updated the ability to extract Telegram data.
- Oxygen Forensic® Cloud Extractor. Updated the extraction algorithm for Samsung Health.
- Oxygen Forensic® Cloud Extractor. Updated the authorization algorithm for AirBnB.
- Oxygen Forensic® Cloud Extractor. Updated the extraction algorithm for Yandex Taxi.
- Oxygen Forensic® KeyScout. Added the ability to parse UserAssist artifact from Windows.
- Oxygen Forensic® KeyScout. Added the ability to parse Most recently used (MRU) artifact from Windows
- Oxygen Forensic® KeyScout. Added the ability to parse RDP Cache artifact from Windows.
- Oxygen Forensic® KeyScout. Added the ability to extract Telegram for macOS data encrypted with a known passcode.
- Oxygen Forensic® KeyScout. Updated the ability to parse setupapi.dev.log artifact from Windows.
- Oxygen Forensic® KeyScout. Updated the ability to parse Event Log from Windows.
- Oxygen Forensic® KeyScout. Updated the ability to parse Jump lists and LNK files from Windows.
- Oxygen Forensic® KeyScout. Updated the ability to collect Mozilla ThunderBird data from Windows, macOS and Linux.
- Oxygen Forensic® KeyScout. Updated the ability to collect Opera data from Windows, macOS and Linux.
- General. Added the new version of Passware Kit Mobile 2022.1.1.2832.
- Import. Added the ability to brute force passcodes of MTK-based Android device extractions with FBE (File-Based Encryption).
- Import. Added the ability to import and parse WonderShare MobileGo and MobileTrans backups made from Apple iOS and Android devices.
- Import. Added the ability to import and parse Facebook account copy in JSON format.
- Import. Updated the ability to decrypt keychain data from UFED extractions.
- User searches. Added the new section that shows user searches from all the extracted applications.
- Files. Added the ability to create custom filters.
- Files. Added the ability to view XPC and IPTC data of media files.
- Export. Added the following data to RSMF reports: Participants account\_id, Events direction, reactions and read receipts. For Telegram read receipts and reactions are now available.
- Export. Redesigned the layout of a PDF report for Applications.
- Applications. Added data parsing from over 2300 new app versions from Apple iOS and Android devices. The total number of supported versions exceeds 33100.
- Applications. Messengers. Added data parsing from TigerConnect (9.11.2) from Android devices and TigerConnect (9.11.7) from Apple iOS devices.
- Applications. Social Networks. Added data parsing from Skout (6.49.0) from Android devices and Skout (6.49.0) from Apple iOS devices.
- Applications. Social Networks. Added data parsing from Omlet Arcade (1.93.3) from Android devices and Omlet Arcade (1.95.0) from Apple iOS devices.
- Applications. Business. Added data parsing from Google Meet (2022.05.31.452076471.Release) from Android devices and Google Meet (92.0.0) from Apple iOS devices.
- Applications. Business. Added data parsing from KiteTech Notepad Notes (1.80.149) from Android devices.
- Applications. Messengers. Updated data parsing from WhatsApp (2.22.10.73) from Android devices and WhatsApp (2.22.13.74) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from WhatsApp Business (2.22.10.73) from Android devices and WhatsApp Business (22.10.78) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Viber (17.9.0.0) from Android devices and Viber (17.9.0) from Apple iOS devices.

- Applications. Messengers. Updated data parsing from CoverMe (2.8.67) from Android devices.
- Applications. Messengers. Updated data parsing from Facebook Messenger (361.1) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Signal (5.44) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Telegram (8.3) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from TikTok (24.6.3) from Android devices and TikTok (24.6.0) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from Grindr (8.12.1) from Android devices and Grindr (8.12.0) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from Instagram (241.1.0.18.114) from Android devices and Instagram (241.1) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from LinkedIn (4.1.698) from Android devices and LinkedIn (9.1.276) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from Twitter (9.48.0-release.0) from Android devices and Twitter (9.15) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from VK (7.31) from Android devices and VK (7.31) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from OK (22.6.14) from Android devices.
- Applications. Web Browsers. Updated data parsing from Firefox (102.1.1) from Android devices and Firefox (102.0) from Apple iOS devices.
- Applications. Web Browsers. Updated data parsing from Google Chrome (102.0.5005.99) from Android devices and Google Chrome (102.0.5005.87) from Apple iOS devices.
- Applications. Web Browsers. Updated data parsing from Yandex (22.52) from Android devices.
- Applications. Business. Updated data parsing from Gmail (2022.05.28.452658383.Release) from Android devices and Gmail (6.0.220516) from Apple iOS devices.
- Applications. Business. Updated data parsing from Outlook (4.2220.0) from Android devices and Outlook (4.2221.1) from Apple iOS devices.
- Applications. Business. Updated data parsing from Speedtest (4.7.18) from Android devices and Speedtest (4.4.2) from Apple iOS devices.
- Applications. Business. Updated data parsing from OneDrive (6.59) from Android devices.
- Applications. Business. Updated data parsing from Digital Wellbeing (1.0.444508425 (9382837)) from Android devices.

### Changes in version 14.5.1 (June 2022):

- Oxygen Forensic® Extractor. Added auto check if OxyAgent is already installed on a device.
- Export. Now addresses received via OpenStreetMap and Mapbox services are added to data reports.
- Import. Updated the ability to import and parse DAR files produced by Passware Kit Mobile Beta.
- Search. Fixed the error that occurred when searching for similar faces.

# Changes in version 14.5 (June 2022):

- Oxygen Forensic® Extractor. Added the ability extract and decrypt data with the known password from Oppo and Realme devices based on the Helio G35 (MT6765) chipset and having FBE (Ext4Crypt).
- Oxygen Forensic® Extractor. Added the ability to extract data from unlocked Apple iOS devices via iOS Agent. The supported iOS versions are 14.0 14.3.
- Oxygen Forensic® Extractor. Added the ability to extract the full file system via checkm8 vulnerability from Apple devices running iOS versions 15.5.
- Oxygen Forensic® Extractor. Added the ability to extract Silent Phone data from unlocked Android devices via OxyAgent.
- Oxygen Forensic® Extractor. Added selective chat extraction from Telegram and Viber from unlocked Android devices via OxyAgent.
- Oxygen Forensic® Extractor. Updated the ability to extract Signal data from unlocked Android devices via OxyAgent.
- Oxygen Forensic® Extractor. Redesigned the Android OxyAgent extraction method.
- Oxygen Forensic® Extractor. Redesigned the extraction method via MTP.
- Oxygen Forensic® Extractor. Interface improvements. Added the navigation panel.
- Oxygen Forensic® Cloud Extractor. Updated support for Google Contacts.
- Oxygen Forensic® Cloud Extractor. Updated the extraction algorithm in Google Home.
- Oxygen Forensic® Cloud Extractor. Updated the extraction algorithm in Google My Activity.
- Oxygen Forensic® Cloud Extractor. Updated the extraction algorithm in TamTam.
- Oxygen Forensic® Cloud Extractor. Updated the authorization algorithm in Discord.
- Oxygen Forensic® Cloud Extractor. Updated the authorization and extraction algorithms in Tinder.
- Oxygen Forensic® KeyScout. Added the ability to import and analyze Lx01 images.
- Oxygen Forensic® KeyScout. Added the ability to import and analyze Ex01 images.
- Oxygen Forensic® KeyScout. Added the ability to import and analyze images of virtual machines of VMX and VBOX formats.
- Oxygen Forensic® KeyScout. Added the ability to parse a setupapi.dev.log artifact from Windows.
- Oxygen Forensic® KeyScout. Added the ability to collect OneDrive data on Windows and macOS.
- Oxygen Forensic® KeyScout. Updated the ability to collect iCloud Drive data on Windows and macOS.

- Oxygen Forensic® KeyScout, Updated the ability to collect Telegram data on Windows and macOS.
- Oxygen Forensic® KeyScout. Updated the ability to collect Slack data on Windows, macOS and Linux.
- Oxygen Forensic® KeyScout. Updated the ability to collect Google Chrome data on Windows, macOS and Linux.
- Oxygen Forensic® KeyScout. Updated the ability to collect Safari data on macOS.
- Oxygen Forensic® KeyScout. Updated the ability to collect Mozilla Firefox data on Windows, macOS and Linux
- Import. Added the ability to import and parse publicly available Facebook account copy.
- Import. Added the ability to decrypt MTK device extractions having Ext4 file system with the known encryption key.
- Import. Added the ability to import and parse UFED memory card extractions.
- General. Added the ability to get addresses from geo coordinates using OpenStreetMap and Mapbox services.
- Search. Accelerated and improved search in SQLite databases.
- Search. Accelerated general search and search by keyword lists.
- Export. Added the ability to split reports by number of entries.
- Export. Added the ability to export messages filtered by month, week and day to separate files from the Messages section.
- Export. Updated the export template in Timeline.
- Export. Updated support for WhatsApp service messages.
- Applications. Added data parsing from over 1400 new app versions from Apple iOS and Android devices. The total number of supported versions exceeds 30800.
- Applications. Messengers. Added data parsing from Google Chat (2022.03.06.433281605.Release) from Android devices and Google Chat (1.0.150) from Apple iOS devices.
- Applications. Messengers. Added data parsing from Google Voice (2022.04.18.442881662) from Android devices and Google Voice (22.18) from Apple iOS devices.
- Applications. Social Networks. Added data parsing from Zenly (4.63.15) from Android devices and Zenly (5.0.6) from Apple iOS devices.
- Applications. Social Networks. Added data parsing from Twitch (12.7.1) from Android devices and Twitch (12.8) from Apple iOS devices.
- Applications. Business. Added data parsing from Email.cz (2.4.6) from Android devices and Email.cz (4.11) from Apple iOS devices.
- Applications. Business. Added data parsing from DingTalk (6.5.5) from Apple iOS devices.
- Applications. Web Browsers. Added data parsing from Phoenix Browser (9.8.5.3685) from Android devices
- Applications. Messengers. Updated data parsing from iMe (8.7.3) from Apple iOS devices and iMe (8.7.4) from Android devices.
- Applications. Messengers. Updated data parsing from Viber (17.6.0) from Apple iOS devices and Viber (17.5.0.6) from Android devices.
- Applications. Messengers. Updated data parsing from WhatsApp (22.10.78) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Discord (123.7) from Android devices.
- Applications. Social Networks. Updated data parsing from Facebook (366.1) from Apple iOS devices and Facebook (365.0.0.30.112) from Android devices.
- Applications. Social Networks. Updated data parsing from Twitter (9.10.1) from Apple iOS devices and Twitter (9.42.0-Release.0) from Android devices.
- Applications. Social Networks. Updated data parsing from VK (7.26) from Apple iOS devices and VK (7.26) from Android devices.
- Applications. Social Networks. Updated data parsing from SCRUFF (6.6500.0) from Apple iOS devices.
- Applications. Web Browsers. Updated data parsing from Google Chrome (100.0.4896.127) from Android devices and Google Chrome (100.0.4896.85) from Apple iOS devices.
- Applications. Web Browsers. Updated data parsing from Microsoft Edge (45.6.1) from Apple iOS devices and Microsoft Edge (45.05.4.5036) from Android devices.
- Applications. Web Browsers. Updated data parsing from DuckDuckGo (7.66.3) from Apple iOS devices.
- Applications. Web Browsers. Updated data parsing from Yandex (11.10) from Android devices.
- Applications. Business. Updated data parsing from Google Translate (6.36.0) from Apple iOS devices and Google Translate (6.36.0.446785256.2) from Android devices.
- Applications. Business. Updated data parsing from Microsoft Outlook (4.2216.0) from Android devices and Microsoft Outlook (4.2217.0) from Apple iOS devices.
- Applications. Business. Updated data parsing from BRD (4.18.0) from Apple iOS devices and BRD (4.18.0) from Android devices.
- Applications. Business. Updated data parsing from Gmail (6.0.220501) from Apple iOS devices and Gmail (2022.05.01.449051655.Release) from Android devices.
- Applications. Business. Updated data parsing from Wildberries (5.3.8.2) from Apple iOS devices and Wildberries (4.5.5000) from Android devices.
- Applications. Business. Updated data parsing from Google Photos (5.87) from Apple iOS devices.
- Applications. Business. Updated data parsing from Google Tasks (1.53) from Apple iOS devices.
- Applications. Business. Updated data parsing from One Drive (6.52) from Android devices.

• Applications. Fitness. Updated data parsing from Fitbit (3.58) from Android devices and Fitbit (3.59) from Apple iOS devices.

### Changes in version 14.4.1 (April 2022):

- Oxygen Forensic® KeyScout. Added the ability to decrypt FileVault2 in APFS volumes of images and external drives.
- Oxygen Forensic® Extractor. Added the Spanish localization.
- Import. Fixed the issue with UFDR import and parsing.

### Changes in version 14.4 (April 2022):

- Oxygen Forensic® Extractor. Added the ability to bypass screen lock, extract and decrypt user data from Huawei devices based on the Kirin 820 chipset.
- Oxygen Forensic® Extractor. Added the ability to extract Wickr Pro data from unlocked Android devices via OxyAgent.
- Oxygen Forensic® Extractor. Added the ability to extract the full file system via checkm8 vulnerability from Apple devices running iOS versions 15.4 15.4.1.
- Oxygen Forensic® Extractor. Added the new method of keychain extraction from Apple devices running the iOS versions lower than 15.0.
- Oxygen Forensic® Extractor. Updated the ability to extract WhatsApp and WhatsApp Business data from unlocked Android devices via OxyAgent.
- Oxygen Forensic® Extractor. Redesigned the Android physical method via rooting.
- Oxygen Forensic® Extractor. Redesigned the extraction method for MTK feature phones.
- Oxygen Forensic® Extractor. Added the About window.
- Oxygen Forensic® Cloud Extractor. Added the ability to extract data from RunKeeper.
- Oxygen Forensic® Cloud Extractor. Updated the authorization algorithm in Mi Fit.
- Oxygen Forensic® Cloud Extractor. Updated the authorization algorithm in Google Android Cloud Data.
- Oxygen Forensic® Cloud Extractor. Updated the ability to extract data from MEGA.
- Oxygen Forensic® Cloud Extractor. Updated the ability to extract messages from VKontakte.
- Oxygen Forensic® KeyScout. Added the ability to analyze macOS Time Machine backups.
- Oxygen Forensic® KeyScout. Added the ability to analyze Windows Volume Shadow Copy snapshots.
- Oxygen Forensic® KeyScout. Added the ability to search files by hash.
- Oxygen Forensic® KeyScout. Added the ability to extract the WhatsApp QR Multi-device token from Windows OS.
- Oxygen Forensic® KeyScout. Added the ability to extract the Telegram for macOS token.
- Oxygen Forensic® KeyScout. Added the ability to extract Apple Calendar, Contacts, Messages, Maps, Notes, Reminders, Photos from macOS 12.1.
- Oxygen Forensic® KeyScout. Added the ability to collect WhatsApp data from Windows OS and macOS.
- Oxygen Forensic® KeyScout. Added the ability to decrypt WhatsApp Desktop messages from Windows OS.
- Oxygen Forensic® KeyScout. Added the ability to parse cache files of Thumbcache\_xxx.db from WIndows.
- Oxygen Forensic® KeyScout. Updated the ability to extract Viber data on Windows and macOS.
- Oxygen Forensic® KeyScout. Updated the ability to extract Microsoft Outlook on Windows.
- Import. Added the ability to import and parse XRY backups of version 12.
- General. Added the ability to choose the default display time zone at data import.
- Search. Added the ability to add face sets to search templates.
- Search. Additional data is now shown about the search results in file content.
- Search. Accelerated data search in parsed data.
- Export. Added the ability to rename fields in the report.
- Export. Added support for long report paths.
- Files. Improved the ability to filter data in the folders tree.
- Applications. Added data parsing from over 600 new app versions from Apple iOS and Android devices. The total number of supported versions exceeds 29300.
- Applications. Business. Added data parsing and decryption from ProtonMail (13.40) from Android devices.
- Applications. Business. Added data parsing from Craigslist (1.16.2) from Android devices.
- Applications. Messengers. Added data parsing from Rocket.Chat (4.25.0) from Android devices and Rocket.Chat (4.25.0) from Apple iOS devices.
- Applications. Social Networks. Added data parsing from Frim (4.7.2) from Android devices and Frim (3.7.21) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Viber (17.2.0.9) from Android devices and Viber (17.2.0) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from WhatsApp (2.22.7.78) from Apple iOS devices and WhatsApp (2.22.7.74) from Android devices.
- Applications. Messengers. Updated data parsing from WhatsApp Business (22.7.78) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from WhatsApp Backup from Android devices.

- Applications. Messengers. Updated data parsing from Anonymous Chat (4.9.1) from Android devices and Anonymous Chat (4.9.1) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Discord (113.8) from Android devices and Discord (117.0) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Zello (5.3.4) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from WeChat (8.0.15) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from QQ (8.2.11) from Android devices.
- Applications. Messengers. Updated data parsing from Facebook Messenger (353.0) from Apple iOS devices
- Applications. Messengers. Updated data parsing from Signal (5.28) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Zoom (5.10.1.5163) from Android devices.
- Applications. Messengers. Updated data parsing from Telegram (8.6.2) from Android devices.
- Applications. Social Networks. Updated data parsing from Instagram (227.0) from Apple iOS devices and Instagram (227.0.0.12.117) from Android devices.
- Applications. Social Networks. Updated data parsing from Facebook (358.0.0.34.117) from Android devices and Facebook (358.0) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from Twitter (9.37.0-release.0) from Android devices and Twitter (9.6) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from VK (7.18.1) from Apple iOS devices and VK (7.20) from Android devices.
- Applications. Business. Updated data parsing Google Mail (2022.02.20.431583552.Release) from Android devices and Google Mail (6.0.220306) from Apple iOS devices.
- Applications. Business. Updated data parsing from Google Translate (6.27) from Android devices and Google Translate (6.2.0) from Apple iOS devices.
- Applications. Business. Updated data parsing from Microsoft Outlook (4.2210.1) from Apple iOS devices and Microsoft Outlook (4.2208.1) from Android devices.
- Applications. Business. Updated data parsing from Yahoo Mail (6.51.2) from Android devices and Yahoo Mail (6.50.0) from Apple iOS devices.
- Applications. Business. Updated data parsing from Yandex.Mail (8.10.4) from Android devices and Yandex.Mail (4.55.0) from Apple iOS devices.
- Applications. Business. Updated data parsing from Flock (2.51.4) from Apple iOS devices.
- Applications. Business. Updated data parsing from Google Keep (2.2022.10201) from Apple iOS devices.
- Applications. Multimedia. Updated data parsing from Google Photos (5.82.0.434379353) from Android devices and Google Photos (5.82) from Apple iOS devices.
- Applications. Multimedia. Updated data parsing from Gallery Vault (3.20.33) from Android devices and Gallery Vault (1.21.1) from Apple iOS devices.
- Applications. Web Browsers. Updated data parsing from Google Chrome (100.0.4896.58) from Android devices and Google Chrome (99.0.4844.59) from Apple iOS devices.
- Applications. Fitness. Updated data parsing from Apple Health from Apple iOS devices.

### Changes in version 14.3.1 (February 2022):

- Oxygen Forensic® Extractor. Fixed the issue when OxyAgent could not be installed on Android OS 12 devices.
- Oxygen Forensic® Cloud Extractor. Fixed the authorization issue with the WhatsApp QR multi-device service.

# Changes in version 14.3 (February 2022):

- Oxygen Forensic® Extractor. Added the ability to bypass screen lock, extract and decrypt user data from Huawei devices based on the Kirin 985 chipset.
- Oxygen Forensic® Extractor. Added the ability to extract the full file system via checkm8 vulnerability from Apple devices running iOS version 15.0- 15.3.1. The supported devices are: iPhone 6s, iPhone 6S Plus, iPhone 8E, iPhone 7, iPhone 7 Plus, iPhone 8 Plus, iPhone X, iPad 5 Gen, iPad 6 Gen and iPad 7 Gen.
- Oxygen Forensic® Extractor. Added the new method of keychain extraction from Apple devices running iOS 15.0-15.3.1.
- Oxygen Forensic® Extractor. Added the ability to extract the full file system from Qualcomm-based Android devices with the SPL not later than May 2021.
- Oxygen Forensic® Extractor. Added the ability to extract keys from Android KeyStore and decrypt Signal and Silent Phone data using the Android Full File System method.
- Oxygen Forensic® Extractor. Added Zoom data extraction from unlocked Android devices via OxyAgent.
- Oxygen Forensic® Extractor. Updated the ability to extract Telegram data from unlocked Android devices via OxyAgent.
- Oxygen Forensic® Extractor. Redesigned the Android ADB Backup method.
- Oxygen Forensic® Extractor. Interface improvements.
- Oxygen Forensic® Cloud Extractor. Added support for the WhatsApp QR Multi-device service.
- Oxygen Forensic® Cloud Extractor. Added data extraction from Mi Fit.

- Oxygen Forensic® KeyScout. Added the ability to analyze macOS images that contain the APFS file system.
- Oxygen Forensic® KeyScout. Added the ability to analyze images and drives that contain the exFAT file system.
- Oxygen Forensic® KeyScout. Added the ability to collect Apple Mail on macOS Monterey 12.1.
- Oxygen Forensic® KeyScout. Added the ability to collect Spark data on macOS.
- Oxygen Forensic® KeyScout. Added the ability to view the detailed information about macOS images.
- Oxygen Forensic® KeyScout. Added the ability to view the information about installed and auto run apps on macOS.
- Oxygen Forensic® KeyScout. Updated the ability to parse the following app data from macOS images: Calendar, Contacts, Mail, Maps, Messages, Notes, Photos, and Reminders.
- Oxygen Forensic® KeyScout. Updated the ability to collect Skype data on Windows OS.
- Oxygen Forensic® KeyScout. Updated JumpLists parsing from Windows OS.
- Oxygen Forensic® KeyScout. Improved the algorithm of examining drives and computer images.
- Import. Added the ability to import and parse Google Takeout data. The following languages of Google Takeout are supported: English, German, French, Spanish, Italian.
- Import. Added the ability to import and parse MTK feature phone images.
- Import. Added the ability to import and parse iCloud synced data extracted with Elcomsoft Phone Breaker
- General. Added the ability to import and export program settings.
- General. Added the ability to add video frames to Key Evidence and assign tags to them.
- Search. Added the ability to search by hex and hex lists in the Search section and at data import.
- Search. Added the Hex Lists Manager in the Search section.
- Search. Added the information about the source file to the search results.
- Search. Updated the database of known hash sets for iOS and Android devices.
- Export. Added the ability to export contact communications from the Contacts section.
- Export. Added the ability to export data by time periods to RSMF format.
- Export. Added the ability to export only Key Evidence entries.
- Export. Added the Security tab in Export settings.
- Export. Extended settings for Load File format.
- Applications. Added data parsing from over 2000 new app versions from Apple iOS and Android devices. The total number of supported versions exceeds 28500.
- Applications. Messengers. Added data parsing from Burner (4.5.0) from Android devices and Burner (4.3.12) from Apple iOS devices.
- Applications. Fitness. Added data parsing from Mi Fit (5.6.0) from Android devices and Mi Fit (5.6.0) from Apple iOS devices.
- Applications. Drones. Added data parsing from Litchi for DJI Drones (2.10.1) from Apple iOS devices.
- Applications. Business. Added data parsing from Spark (2.11.3) from Android devices and Spark (2.11.10) from Apple iOS devices.
- Applications. Business. Added data parsing from SberDisk (2.8) from Android devices and SberDisk (2.8) from Apple iOS devices.
- Applications. Business. Added data parsing from Craigslist (1.15.2) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from WhatsApp (2.21.243) from Apple iOS devices and WhatsApp (2.21.24.22) from Android devices.
- Applications. Messengers. Updated data parsing from Brosix (4.7.1) from Android devices and Brosix (4.7.1) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from KakaoTalk (9.6.5) from Android devices and KakaoTalk (9.6.5) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Line (12.1.0) from Android devices and Line (12.1.0) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Viber (16.9.0) from Apple iOS devices and Viber (16.9.0.2) from Android devices.
- Applications. Messengers. Updated data parsing from Telegram (8.5.0) from Android devices.
- Applications. Messengers. Updated data parsing from QQ (8.2.11) from Android devices.
- Applications. Messengers. Updated data parsing from Google Duo (155.0) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from Facebook (351.0.0.38.117) from Android devices and Facebook (348.2) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from Grindr (8.1.2) from Android devices and Grindr (7.24.1) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from Instagram (220.0) from Apple iOS devices and Instagram (219.0.0.12.117) from Android devices.
- Applications. Social Networks. Updated data parsing from OK (22.1.17) from Android devices.
- Applications. Social Networks. Updated data parsing from VK (7.10) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from Twitter (8.96) from Apple iOS devices.
- Applications. Business. Updated data parsing from Gmail (6.0.220109) from Apple iOS devices and Gmail (2022.01.09.423451891.Release) from Android devices.
- Applications. Business. Updated data parsing from SHAREit (6.2.88\_ww) from Android devices and SHAREit (3.6.98) from Apple iOS devices.

- Applications, Business, Updated data parsing from OneDrive (6.47.1) from Android devices.
- Applications. Business. Updated data parsing from Speedtest (4.3.15) from Apple iOS devices.
- Applications. Business. Updated data parsing from Files by Google (1.0.421968649) from Android devices.
- Applications. Business. Updated data parsing from Google Translate (6.28.0.05.421483610) from Android devices.
- Applications. Business. Updated data parsing from Google Tasks (2021.11.08.408220008.0-release) from Android devices.
- Applications. Fitness. Updated data parsing from Strava (238.7) from Android devices and Strava (233.0) from Apple iOS devices.
- Applications. Multimedia. Updated data parsing from Google Photos (5.75) from Apple iOS devices and Google Photos (5.74.0.423845793) from Android devices.
- Applications. Navigation. Updated data parsing from Yandex. Maps (13.7.5) from Apple iOS devices.

### Changes in version 14.2.0.100 (December 2021):

- General. Improved support for Qualcomm EDL extractions.
- Oxygen Forensic® Extractor. Fixed the issue with full logical extraction of Apple iOS devices.

### Changes in version 14.2 (December 2021):

- Oxygen Forensic® Extractor. Added the ability to bypass screen lock and decrypt physical dumps created from Huawei devices based on Kirin chipsets and having the SPL of May and June 2021.
- Oxygen Forensic® Extractor. OxyAgent extraction. Added the ability to extract data from the Telegram version downloaded from the official website.
- Oxygen Forensic® Extractor. OxyAgent extraction. Added a blackout of the device screen during data extraction from third-party apps.
- Oxygen Forensic® Extractor. Redesigned the interface of the iTunes backup method.
- Oxygen Forensic® Cloud Extractor. Updated the authorization algorithms in the WhatsApp QR, WhatsApp Cloud, VIPole, Foursquare and Microsoft services.
- Oxygen Forensic® Cloud Extractor. Updated the extraction algorithm in the LinkedIn service.
- Oxygen Forensic® Cloud Extractor. Updated the authorization and extraction algorithms in Telegram.
- Oxygen Forensic® Cloud Extractor. Redesigned the view mode for emails extracted from the Email (IMAP) service.
- Oxygen Forensic® KeyScout. Added the ability to extract and parse USN (NTFS) journals from Windows.
- Oxygen Forensic® KeyScout. Added the ability to extract and parse LogFile (NTFS) journals from Windows.
- Oxygen Forensic® KeyScout. Added the ability to extract and parse LNK files from Windows Desktop and other sources.
- Oxygen Forensic® KeyScout. Added the ability to extract and parse TOAST notifications from Windows.
- Oxygen Forensic® KeyScout. Added the ability to extract Google Drive for Desktop from Windows and macOS
- Import. Added the ability to import and parse Google Warrant Returns.
- Import. Added the ability to import and parse Android GrayKey extractions.
- Import. Added the ability to import and parse UFDX extractions.
- Import. Added the ability to partially parse and analyze iOS, Android and KaiOS extractions.
- Import. Updated support for Samsung Smart Switch backups.
- File Viewer. Added support for MongoDB Realm databases.
- Statistics. Added visualization of Project VIC files.
- Export. Statistics of Project VIC files are included in data reports.
- Applications. Added the ability to download content from the web.
- Applications. Added data parsing from over 900 new app versions from Apple iOS and Android devices. The total number of supported versions exceeds 26300.
- Applications. Business. Added data parsing from CyberGhost VPN (8.6.3.390) from Android devices and CyberGhost VPN (8.3.3) from Apple iOS devices.
- Applications. Business. Added data parsing from ZenMate VPN (5.2.1.315) from Android devices and ZenMate VPN (5.1.5) from Apple iOS devices.
- Applications. Business. Added data parsing from ExpressVPN (10.13.0) from Android devices and ExpressVPN (11.17.0) from Apple iOS devices.
- Applications. Business. Added data parsing from NordVPN (5.7.5) from Android devices and NordVPN (7.5.0) from Apple iOS devices.
- Applications. Business. Added data parsing from RusVPN (2.4.12) from Android devices and RusVPN (2.4.9) from Apple iOS devices.
- Applications. Business. Added data parsing from Flock (4.9.4888) from Android devices and Flock (2.51.1) from Apple iOS devices.
- Applications. Business. Added data parsing from VK Mail (1.0.2) from Android devices and VK Mail (1.0.2) from Apple iOS devices.
- Applications. Messengers. Added data parsing from AnonChat (4.7.2) from Android devices and AnonChat (4.7.2) from Apple iOS devices.

- Applications. Social Networks. Added data parsing from Clubhouse (1.0.12) from Android devices.
- Applications. Messengers. Updated data parsing from Azar (4.13.0) from Android devices and Azar (3.2.0) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Facebook Messenger (337.1.0.11.11) from Android devices and Facebook Messenger (339.0) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Brosix (4.6.3) from Android devices and Brosix (4.6.3) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from BiP (3.82.14) from Android devices and BiP (3.82) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from KakaoTalk (9.5.7) from Android devices and KakaoTalk (9.5.8) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Skype (8.79.0.92) from Android devices and Skype (8.79.1) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Zello (4.118.1) from Android devices and Zello (4.118.2) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Viber (16.5.1) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Wickr Me (5.90.8) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Zalo (21.11.02) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Telegram (8.2.7) from Android devices.
- Applications. Social Networks. Updated data parsing from Facebook (345.0.0.34.118) from Android devices and Facebook (345.0) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from VK (6.60) from Android devices and VK (6.60) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from Instagram (215.0.0.0.230) from Android devices and Instagram (214.0) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from LinkedIn (9.1.246) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from Clubhouse (1.0.26) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from OK (21.11.15) from Android devices.
- Applications. Social Networks. Updated data parsing from Twitter (8.92.2) from Apple iOS devices.
- Applications. Business. Updated data parsing from Outlook (4.2141.0) from Apple iOS devices and Outlook (4.2141.0) from Android devices.
- Applications. Business. Updated data parsing from Speedtest (4.6.13) from Android devices and Speedtest (4.3.14) from Apple iOS devices.
- Applications. Business. Updated data parsing from Gmail (2021.09.10.398592922.Release) from Android devices.
- Applications. Business. Updated data parsing from Google Tasks (1.42) from Apple iOS devices.
- Applications. Business. Updated data parsing from Yandex.Mail (4.48.0) from Apple iOS devices.
- Applications. Travel. Updated data parsing from Skyscanner (7.52) from Android devices and Skyscanner (7.52) from Apple iOS devices.
- Applications. Multimedia. Updated data parsing from Google Photos (5.64.0.404595723) from Android devices.
- Applications. Web Browsers. Updated data parsing from Samsung Browser (16.0.2.19) from Android devices.

# Changes in version 14.1.1 (November 2021):

• Applications. Messengers. Added data parsing from Silent Phone (6.13) from Apple iOS devices and Silent Phone (6.13) from Android devices.

### Changes in version 14.1 (October 2021):

- Oxygen Forensic® Extractor. Added the ability to bypass screen lock and decrypt physical dumps of LG Android devices based on Qualcomm chipsets.
- Oxygen Forensic® Extractor. Added the ability to bypass screen lock, disable the DAA authentication and decrypt physical dumps of Android devices based on MTK chipsets.
- Oxygen Forensic® Extractor. Added the ability to extract the full file system from unlocked Android devices with the SPL no later than May 2021.
- Oxygen Forensic® Extractor. Added the ability to extract data from iPhone 7 and iPhone 7 Plus running iOS 14.0-14.8.1 with the known passcode. If the passcode is unknown, limited data can be extracted in BFU mode.
- Oxygen Forensic® Extractor. Added the ability to extract Wickr Me data from unlocked Android devices via OxyAgent.
- Oxygen Forensic® Extractor. Redesigned the interface of the Qualcomm EDL extraction method.
- Oxygen Forensic® Cloud Extractor. Added the ability to extract data from Grindr Google backups.
- Oxygen Forensic® Cloud Extractor. Added the ability to extract data from MEGA.
- Oxygen Forensic® Cloud Extractor. Added the ability to extract channel comments from Telegram.
- Oxygen Forensic® Cloud Extractor. Added the ability to select Telegram chats for extraction.
- Oxygen Forensic® Cloud Extractor. Updated the authorization algorithm in the WhatsApp Cloud.
- Oxygen Forensic® KeyScout. Added support for Windows OS 11.

- Oxygen Forensic® KeyScout. Added the ability to import and parse virtual machine images of VDI, VHD, and VMDK formats.
- Oxygen Forensic® KeyScout. Added the ability to import and parse logical images of 7z, rar, tar formats.
- Oxygen Forensic® KeyScout. Added the ability to import and parse DMG and ISO images.
- Oxygen Forensic® KeyScout. Added support for FAT, EXT2/3/4, HFS/HFS+ file systems of E01,RAW/DD,VDI, VHD, and VMDK images.
- Oxygen Forensic® KeyScout. Added the ability to select the folder where an imported image will be saved.
- Oxygen Forensic® KeyScout. Added the ability to parse separate .eml files.
- Oxygen Forensic® KeyScout. Updated the ability to collect data from Thunderbird from Windows, macOS and Linux.
- Oxygen Forensic® KeyScout. Updated the ability to collect and decrypt data from Telegram from macOS.
- General. Added the ability to view cloud extraction logs.
- General. Added the ability to import and parse Apple iOS and Android file system folders.
- General. Added the ability to import and parse Apple iOS extractions made with Passware Kit Mobile.
- Image Categorization. Added the ability to automatically categorize tattoos and aircrafts.
- Image Categorization. Accelerated image categorization and improved categorization of drugs and weapons.
- OCR. Added the ability to preprocess images for better recognition.
- Analytical sections. Added the visualization of the owner's name, email and phone number entered by the investigator.
- Data Recovery. Improved the ability to filter and deduplicate recovered records.
- Export. Added the ability to set the maximum size of PDF, RTF, HTML export files.
- Export. A file extension will be added to the exported file in case it was extracted without any extension but it can be determined by the signature.
- Applications. Added data parsing from over 900 new app versions from Apple iOS and Android devices. The total number of supported versions exceeds 25200.
- Applications. Messengers. Added support for WhatsApp Business backup (Crypt12) from Android devices.
- Applications. Messengers. Added data parsing from iMe Messenger & Crypto Wallet (8.0) from Apple iOS devices and iMe Messenger & Crypto Wallet (8.1.1) from Android devices.
- Applications. Social Networks. Added data parsing from MX TakaTak (1.20.1) from Apple iOS devices and MX TakaTak (1.17.11) from Android devices.
- Applications. Social Networks. Added data parsing from Reddit (2021.36.0) from Apple iOS devices and Reddit (2021.35.0) from Android devices.
- Applications. Web Browsers. Added data parsing from Brave Private Browser (1.31) from Apple iOS devices and Brave Private Browser (1.29.81) from Android devices.
- Applications. Business. Added data parsing from Private Photo Vault Pro (12.0) from Apple iOS devices.
- Applications. Business. Added data parsing from ProtonMail (1.15.4) from Apple iOS devices.
- Applications. Business. Added parsing of Apple Notes from \private\var\mobile\Library\Notes\notes.sqlite file.
- Applications. Messengers. Updated data parsing from WhatsApp (2.21.18.7) from Android devices and WhatsApp (2.21.151) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Skype (8.75.0.140) from Android devices and Skype (8.75.140) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Viber (16.3.2) from Apple iOS devices and Viber (16.3.1.26) from Android devices.
- Applications. Messengers. Updated data parsing from Telegram (8.1.2) from Apple iOS devices and Telegram (8.1.2) from Android devices.
- Applications. Messengers. Updated data parsing from Discord (94.11) from Android devices.
- Applications. Messengers. Updated data parsing from Wire (3.87) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from BiP (3.81) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Google Duo (151.0) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Signal (5.21.3) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from Instagram (205.0.0.34.114) from Android devices and Instagram (204.0) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from Facebook (335.0.0.28.118) from Android devices and Facebook (340.0) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from Badoo (5.235.1) from Android devices and Badoo (5.230.1) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from Snapchat (11.43.0.23) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from Pinterest (9.29) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from Twitter (8.87) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from VK (6.53) from Android devices.
- Applications. Business. Updated data parsing from GMail (2021.09.10.397347674.Release) from Android devices and GMail (6.0.210905) from Apple iOS devices

- Applications. Business. Updated data parsing Google (12.36.21.23.arm64) from Android devices and Google (177.0) from Apple iOS devices.
- Applications. Business. Updated data parsing from Wildberries (4.2.7000) from Android devices and Wildberries (3.5.9) from Apple iOS devices.
- Applications. Business. Updated data parsing from Speedtest (4.6.9) from Android devices and Speedtest (4.3.13) from Apple iOS devices.
- Applications. Business. Updated data parsing from Google Keep (5.21.341.01.30) from Android devices.
- Applications. Business. Updated data parsing from Private Photo Vault (10.6) from Apple iOS devices.
- Applications. Web Browsers. Updated data parsing from Google Chrome (93.0.4577.62) from Android devices and Google Chrome (93.0.4577.78) from Apple iOS devices.
- Applications. Web Browsers. Updated data parsing from DuckDuckGo Privacy Browser (7.64.7) from Apple iOS devices.
- Applications. Web Browsers. Updated data parsing from Firefox Browser (38.1) from Apple iOS devices.
- Applications. Finance. Updated data parsing from BRD (4.11.1) from Android devices and BRD (4.12.3) from Apple iOS devices.
- Applications. Multimedia. Updated data parsing from Google Photos (5.59.0.397558512) from Android devices and Google Photos (5.62) from Apple iOS devices.

### Changes in version 14.0 (September 2021):

- Oxygen Forensic® Extractor. Added the ability to bypass screen lock and decrypt physical dumps of Android devices based on MT6753 chipsets.
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- Oxygen Forensic® Extractor. Added the ability to extract Telegram data from unlocked Android devices via OxyAgent.
- Oxygen Forensic® Extractor. Redesigned the interface of the KaiOS extraction method.
- Oxygen Forensic® Cloud Extractor. Added the ability to extract data from Grindr iCloud backups.
- Oxygen Forensic® Cloud Extractor. Added the ability to extract new message types from Instagram.
- Oxygen Forensic® Cloud Extractor. Updated the ability to authorize and extract data from iCloud Contacts
- Oxygen Forensic® Cloud Extractor. Updated the ability to extract data from WhatsApp Cloud.
- Oxygen Forensic® Cloud Extractor. Updated the ability to extract data from Slack.
- Oxygen Forensic® Cloud Extractor. Updated the ability to authorize in Evernote.
- Oxygen Forensic® KeyScout. Added import and parsing of new RAW formats: DD, BIN, and IMG.
- Oxygen Forensic® KeyScout. Added the ability to extract data from external drives.
- Oxygen Forensic® KeyScout. Added the ability to select search templates before data extraction.
- Oxygen Forensic® KeyScout. Added the ability to extract Apple Unified Log from macOS.
- Oxygen Forensic® KeyScout. Added the ability to extract data from a web -based version of Instagram from Google Chrome browser on Windows, macOS and Linux.
- Oxygen Forensic® KeyScout. Added the ability to extract Google Chrome browser cache on Windows, macOS and Linux.
- Oxygen Forensic® KeyScout. Added the ability to extract ChatWork data from Windows and macOS.
- Oxygen Forensic® KeyScout. Added the ability to extract Your Phone data from Windows.
- Oxygen Forensic® KeyScout. Updated the ability to extract Viber data from Windows and macOS.
- Oxygen Forensic® KeyScout. Updated the ability to extract WhatsApp data from Windows and macOS.
- General. Added the ability to merge several extractions into one.
- General. Added the ability to create custom dictionaries for passcode brute force in the Password Manager.
- General. Added the ability to create custom attacks using the options available in the Passware Kit
  Mobile
- General. Import. Significantly improved the algorithm of app deleted records recovery and increased the speed of extractions parsing. More deleted records can be now recovered.
- Facial Recognition. Added the ability to add and remove faces from the Persons.
- Viewer for SQLite databases. Added the ability to view and search data in free and unused pages.
- Viewer for SQLite databases. Added hash calculation for database, Journal and WAL files.
- File Viewer. Added the ability to open extracted office documents of various formats: Microsoft Office (DOC, DOCX, XLS, XLSX, PPT, PPTX, etc) and OpenDocument (ODT, ODS, ODP, OTT, etc)
- Files. Added the ability to select a thumbnail size.
- Data Import. Added the ability to import and parse UFDR reports made from non-smartphones.
- Data Import. Added the ability to import Huawei backups created in UFED.
- Data Export. Added free disk space check before data export.
- Data Export. Added icons that show message status and direction in data reports.
- Applications. Added data parsing from over 900 new app versions from Apple iOS and Android devices. The total number of supported versions exceeds 24200.
- Applications. Business. Added data parsing from Digital Wellbeing (1.0.372116326) from Android devices.
- Applications. Business. Added data parsing from Beekeeper (7.16.0b258) from Android devices and Beekeeper (7.13.1) from Apple iOS devices.
- Applications. Business. Added data parsing from Chatwork (5.33.0) from Apple iOS devices.

- Applications. Multimedia. Added data parsing from Solocator (2.37.5) from Android devices and Solocator (2.13) from Apple iOS devices.
- Applications. Multimedia. Added data parsing from GPS Camera 55 (2.8) from Apple iOS devices.
- Applications. Social Networks. Added data parsing from Grindr (7.13.0) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from WhatsApp (2.21.170) from Apple iOS devices and WhatsApp (2.21.18.7) from Android devices.
- Applications. Messengers. Updated data parsing from Telegram (7.9.3) from Android devices and Telegram (7.9.2) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Line (11.13.2) from Android devices and Line (11.12.1) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from ICQ (10.4(824757)) from Android devices and ICQ (10.4) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Voxer (3.18.20.21755) from Android devices and Voxer (3.22.19) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Facebook Messenger (325.1) from Apple iOS devices and Facebook Messenger (329.0.0.0.5) from Android devices.
- Applications. Messengers. Updated data parsing from Viber (15.8.0.15) from Android devices and Viber (15.9.0) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Zello (4.113.0) from Apple iOS devices and Zello (4.113.1) from Android devices.
- Applications. Messengers. Updated data parsing from Threema (4.6.10) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Wickr Me (5.85.5) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from BiP (3.79) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Brosix (4.6.3) from Android devices.
- Applications. Messengers. Updated data parsing from KakaoTalk (9.4.2) from Android devices.
- Applications. Social Networks. Updated data parsing from Facebook (333.0) from Apple iOS devices and Facebook (331.1.0.29.117) from Android devices.
- Applications. Social Networks. Updated data parsing from Grindr (7.15.0) from Android devices.
- Applications. Social Networks. Updated data parsing from OK (9.3.2) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from Snapchat (11.30.0.38) from Android devices.
- Applications. Social Networks. Updated data parsing from Pinterest (9.25.0) from Android devices.
- Applications. Social Networks. Updated data parsing from VK (6.51.1) from Apple iOS devices.
- Applications. Business. Updated data parsing from Slack (21.08.10.0) from Android devices and Slack (21.06.32) from Apple iOS devices.
- Applications. Business. Updated data parsing from Google Translate (6.20.0) from Apple iOS devices.
- Applications. Business. Updated data parsing from GMail (2021.05.16.380255809) from Android devices and GMail (6.0.210627) from Apple iOS devices.
- Applications. Business. Updated data parsing from Mega (5.18.1) from Apple iOS devices.
- Applications. Business. Updated data parsing from Microsoft OneDrive (6.36) from Android devices.
- Applications. Business. Updated data parsing from Wildberries (3.4.7) from Apple iOS devices.
- Applications. Business. Updated data parsing from Yahoo Mail (6.36.1) from Android devices.
- Applications. Business. Updated data parsing from Yandex Mail (7.8.3) from Android devices.
- Applications. Web Browsers. Updated data parsing from Google Chrome (91.0.4472.120) from Android devices and Google Chrome (92.0.4515.90) from Apple iOS devices.
- Applications. Web Browsers. Updated data parsing from Firefox (36.0) from Apple iOS devices.
- Applications. Multimedia. Updated data parsing from Google Photos (5.49) from Apple iOS devices and Google Photos (5.55.0.390939483) from Android devices.
- Applications. Travel. Updated data parsing from Lime (2.129.0) from Android devices.

### Changes in version 13.7.0.100 (August 2021):

- Oxygen Forensic® Extractor. Updated the ability to extract Viber calls via OxyAgent.
- Oxygen Forensic® Extractor. Updated the ability to extract Discord account details via OxyAgent.
- Applications. Updated support for Signal backups extracted from Android OS devices directly or via OxvAgent.
- Data import. Improved support for Snapchat Warrant Returns.
- General. Improved support for F2FS physical images.
- Fixed the license issue with the Passware Kit Mobile module.

### Changes in version 13.7 (July 2021):

- Oxygen Forensic® Extractor. Added the ability to extract Viber data from unlocked Android devices via OxyAgent.
- Oxygen Forensic® Extractor. Added the ability to extract additional information about Twitter contacts via OxyAgent.
- Oxygen Forensic® Extractor. Redesigned the iOS Extractor interface.
- Oxygen Forensic® Extractor. Redesigned the interface of the MTK boot modification method.
- Oxygen Forensic® Cloud Extractor. Added the ability to extract Discord data by scanning a QR code.
- Oxygen Forensic® Cloud Extractor. Added the ability to extract iCloud backups made from Apple devices with iOS 15 beta.

- Oxygen Forensic® Cloud Extractor. Updated the ability to extract chats from Facebook.
- Oxygen Forensic® Cloud Extractor. Updated the authorization algorithms for WhatsApp Google Drive backup and WhatsApp QR services.
- Oxygen Forensic® Cloud Extractor. Improved the ability to decrypt WhatsApp (crypt14) backups.
- Oxygen Forensic® Cloud Extractor. Updated the authorization algorithm for SecMail service.
- Oxygen Forensic® KeyScout. Added support for Deflate64 format and images created by KAPE (Kroll Artifact Parser and Extractor) utility.
- Oxygen Forensic® KeyScout. Added passwords extraction from Microsoft Edge on Windows.
- Oxygen Forensic® KeyScout. Improved the Options menu interface.
- Oxygen Forensic® KeyScout. Improved parsing of JumpLists.
- Oxygen Forensic® KeyScout. Improved the ability to collect LNK files
- Oxygen Forensic® KeyScout. Updated the ability to extract tokens from Telegram Desktop on Windows, macOS and Linux.
- General. Added the ability to add custom fields for devices and cases.
- General. Added Case Info tab in the Case Information window.
- Export. Added data export to Consilio XML.
- Export. Faces. Added export to XML format.
- Export. Search. Added export of found face sets to PDF, RTF, XLS, HTML, and XML formats.
- Search. Improved the ability to search data by geo coordinates and IP addresses.
- Applications. Added descriptions for the extracted app categories and columns.
- Applications. Added data parsing from over 700 new app versions from Apple iOS and Android devices. The total number of supported versions exceeds 23200.
- Applications. Finance. Added data parsing from Google Play (2.130.370156226) from Android devices.
- Applications. Business. Added data parsing from Chatwork (6.21.0) from Android devices.
- Applications. Business. Added data parsing from Twist (21.5.4) from Apple iOS devices and Twist (v189) from Android devices.
- Applications. Business. Added data parsing from SuperNote (4.910) from Apple iOS devices.
- Applications. Social Networks. Added data parsing from Coffee Meets Bagel Dating App (7.16.0) from Apple iOS devices and Coffee Meets Bagel Dating App (5.57.0.4382) from Android devices.
- Applications. Messengers. Updated data parsing from Line (11.10.2) from Android devices and Line (11.10.0) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Zello (4.111.9) from Android devices and Zello (4.111.4) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Viber (15.4.0.1) from Android devices and Viber (15.5.5) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Signal (5.14) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Skype (8.72) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Threema (4.54) from Android devices.
- Applications. Messengers. Updated data parsing from Kik (15.35.0.24633) from Android devices.
- Applications. Messengers. Updated data parsing from BiP (3.76) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Discord (80.0) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from KakaoTalk (9.2.8) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Zalo (20.11.01.r1) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from Facebook (322.0) from Apple iOS devices and Facebook (322.0.0.35.121) from Android devices.
- Applications. Social Networks. Updated data parsing from Instagram (189.0.0.41.121) from Android devices and Instagram (190.0) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from LinkedIn (4.1.578) from Android devices.
- Applications. Social Networks. Updated data parsing from Swarm (6.11.3) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from Twitter (8.61) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from Tumblr (20.4) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from Snapchat (11.30.0.38) from Android devices.
- Applications. Social Networks. Updated data parsing from Odnoklassniki (21.7.5) from Android devices.
- Applications. Social Networks. Updated data parsing from VK (6.42) from Android devices.
- Applications. Business. Updated data parsing from Gmail (2021.05.16.380255809) from Android devices.
- Applications. Business. Updated data parsing from OneDrive (6.31) from Android devices.
- Applications. Business. Updated data parsing from Teamviewer (12315.18.2) from Apple iOS devices.
- Applications. Business. Updated data parsing from Google Tasks (1.33) from Apple iOS devices.
- Applications. Business. Updated data parsing from Mega (5.17.1) from Apple iOS devices.
- Applications. Business. Updated data parsing from Microsoft Outlook (4.2121.2) from Android devices.
- Applications. Web Browsers. Updated data parsing from Firefox Browser (88.1.4) from Android devices.
- Applications. Multimedia. Updated data parsing from Google Photos (5.44.0.377108524) from Android devices.

### Changes in version 13.6 (June 2021):

• Oxygen Forensic® Extractor. Added the ability to perform physical extraction of Huawei devices based on Qualcomm chipsets and having FBE.

- Oxygen Forensic® Extractor. Added the ability to perform full file system extraction of Samsung Exynos devices having FBE and running Android OS 11.
- Oxygen Forensic® Extractor. Added the ability to extract Twitter data from unlocked Android devices via OxyAgent.
- Oxygen Forensic® Extractor. Added the ability to extract Line data from unlocked Android devices via OxyAgent.
- Oxygen Forensic® Extractor. Added checkm8 support for Apple devices with iOS 12.5.3, 14.6 and 14.7 beta 1.
- Oxygen Forensic® Extractor. Updated the ability to extract Discord private chats from unlocked Android devices via OxyAgent.
- Oxygen Forensic® Extractor. Updated the ability to extract Signal data from unlocked Android devices via OxyAgent.
- Oxygen Forensic® Cloud Extractor. Added the ability to extract data from Ring via login and password or token.
- Oxygen Forensic® Cloud Extractor. Added the ability to extract data from GroupMe via login and password or token.
- Oxygen Forensic® Cloud Extractor. Added the ability to extract iCloud backups made from Apple devices with iOS 14.6 and 14.7 beta 1.
- Oxygen Forensic® Cloud Extractor. Added the ability to decrypt WhatsApp backups of crypt14 version via phone number or token.
- Oxygen Forensic® Cloud Extractor. Updated the ability to decrypt WhatsApp backups and authorize in WhatsApp cloud.
- Oxygen Forensic® Cloud Extractor. Improved the ability to decrypt WhatsApp backups of crypt7, crypt8 and crypt9 versions via phone number or token.
- Oxygen Forensic® Cloud Extractor. Updated the authorization algorithm for Uber.
- Oxygen Forensic® Cloud Extractor. Updated the ability to extract data from MyParrot account.
- Oxygen Forensic® KeyScout. Added the ability to import and parse logical L01 images made from Windows, macOS and Linux computers.
- Oxygen Forensic® KeyScout. Added the ability to collect Ring data on Windows and macOS.
- Oxygen Forensic® KeyScout. System Artifacts. Added the ability to collect system and user Preferences on macOS.
- Oxygen Forensic® KeyScout. System Artifacts. Added the ability to collect logs from /var/log folder on macOS and Linux.
- Oxygen Forensic® KeyScout. Added the ability to collect additional Windows registry artifacts.
- Oxygen Forensic® KeyScout. Updated the ability to collect Unigram user data on Windows.
- General. Added the ability to select several brute force attacks that will be carried out one after another.
- General. The brute force process is now more detailed.
- General. Added the ability to add custom fields to the device information and edit the owner details.
- Timeline. Added three new filters in the Smart Filter button. They allow filtering events within a specified time period from Key Evidence events and events with geo coordinates.
- File Viewer for SQLite databases. Added the Recovery info column on the SQLite with recovered data tab.
- File Viewer for SQLite databases. Added the Recovery options button on the toolbar.
- File Viewer for SQLite databases. Added the ability to save search results to an external file.
- Import. Added the ability to import and parse UFED reports.
- Export. Added the ability to export data to Project VIC 2.0 format.
- Export to Load File format. Added the ability to save and import report templates.
- Export. Added the ability to export geo coordinates to KML and GPX formats in the Applications section.
- Applications. Added data parsing from over 600 new app versions from Apple iOS and Android devices. The total number of supported versions exceeds 22500.
- Applications. Business. Added data parsing from Ring (5.38.1) from Apple iOS devices and Ring (3.39.0) from Android devices.
- Applications. Business. Added data parsing from Google Admin (3.4) from Apple iOS devices and Google Admin (2020110900) from Android devices.
- Applications. Business. Added data parsing from Mega (5.9.4) from Apple iOS devices and Mega (4.1.2 (372)) from Android devices.
- Applications. Business. Added data parsing from Samsung Notes (3.1.06.3) from Android devices.
- Applications. Web Browsers. Added data parsing from Mi Browser (12.10.7-gn) from Android devices.
- Applications. Web Browsers. Added data parsing from Huawei Browser (11.0.8.303) from Android devices
- Applications. Messengers. Added data parsing from Marco Polo (0.1325.0) from Apple iOS devices and Marco Polo (0.304.0) from Android devices.
- Applications. Messengers. Added the ability to decrypt WhatsApp Messenger backups (crypt14) from Android devices.
- Applications. Messengers. Updated data parsing from Facebook Messenger (313.0.0.15.119) from Android devices and Facebook Messenger (308.0) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from GroupMe (5.59.5) from Android devices and GroupMe (5.50.0) from Apple iOS devices.

- Applications. Messengers. Updated data parsing from Telegram (7.7) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from WeChat (8.0.5) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Zangi private messenger (5.2.0) from Android devices.
- Applications. Messengers. Updated data parsing from Verizon Messages (7.3.6) from Android devices.
- Applications. Messengers. Updated data parsing from BiP (3.74.9) from Android devices.
- Applications. Messengers. Updated data parsing from Imo (2021.04.2041) from Android devices.
- Applications. Messengers. Updated data parsing from Signal (5.11.1) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Skype (8.71) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Tamtam (3.0.3) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Discord (74.0) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from VSCO (217) from Android devices and VSCO (214.0) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from VK (6.36) from Android devices and VK (6.36) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from Tumblr (19.5.0.00) from Android devices.
- Applications. Social Networks. Updated data parsing from Clubhouse (0.1.37) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from Facebook (318.0) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from Instagram (188.0) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from LinkedIn (9.1.221) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from Swarm (6.10.1) from Android devices.
- Applications. Web Browsers. Updated data parsing from DuckDuckGo (5.80.3) from Android devices and DuckDuckGo (7.63.4) from Apple iOS devices.
- Applications. Web Browsers. Updated data parsing from Firefox (33.1) from Apple iOS devices.
- Applications. Web Browsers. Updated data parsing from Google Chrome (90.0.4430.216) from Apple iOS devices.
- Applications. Business. Updated data parsing from Google (12.6.13.23.arm64) from Android devices and Google (159.0) from Apple iOS devices.
- Applications. Business. Updated data parsing from Google Docs (1.2021.18204) from Apple iOS devices.
- Applications. Business. Updated data parsing from Google Keep (5.21.181.01.40) from Android devices.
- Applications. Business. Updated data parsing from Gmail (6.0.210404) from Apple iOS devices.
- Applications. Business. Updated data parsing from Microsoft Teams (1416/1.0.0.2021053801) from Android devices.
- Applications. Business. Updated data parsing from Wildberries (4.1.2000) from Android devices.
- Applications. Business. Updated data parsing from AliExpress (8.28) from Android devices.
- Applications. Multimedia. Updated data parsing from Google Photos (5.40.0.370514262) from Android devices.
- Applications. Multimedia. Updated data parsing from Files By Google (1.0.368773909) from Android devices.

#### Changes in version 13.5 (April 2021):

- Oxygen Forensic® Extractor. Added the ability to perform a full file system extraction of Samsung Exynos devices having FBE and running pre-installed Android OS 9 and 10.
- Oxygen Forensic® Extractor. Added the ability to extract Secure Folder data from Samsung Exynos devices having FBE and running pre-installed Android OS 9 and 10.
- Oxygen Forensic® Extractor. Added the ability to extract Huawei PrivateSpace data from Kirin-based Huawei devices running Android OS 9 and 10.
- Oxygen Forensic® Extractor. Added the ability to gain root rights and perform a full file system extraction of unlocked Android OS devices based on Qualcomm chipsets with SPL no later than December 2020.
- Oxygen Forensic® Extractor. Added the ability to extract Android OS 11 devices via OxyAgent.
- Oxygen Forensic® Extractor. Added hash calculation for device physical dumps.
- Oxygen Forensic® Extractor. Added checkm8 support for Apple devices with iOS 12.5.2, 14.4.1, 14.4.2 and 14.6 beta.
- Oxygen Forensic® Cloud Extractor. Updated the ability to extract data from OneDrive, Outlook Contacts, Outlook Calendars, Outlook Mail and Skype.
- Oxygen Forensic® Cloud Extractor. Updated the ability to extract data from Booking.com.
- Oxygen Forensic® KeyScout. Added the ability to capture memory (RAM).
- Oxygen Forensic® KeyScout. System Artifacts. Added the ability to extract the Finder artifact on macOS.
- Oxygen Forensic® KeyScout. System Artifacts. Added the ability to extract the Spotlight artifact on macOS.
- Oxygen Forensic® KeyScout. System Artifacts. Added the ability to extract the CloudDocs artifact on macOS.
- Oxygen Forensic® KeyScout. System Artifacts. Added the ability to extract the autorun items on macOS.
- Oxygen Forensic® KeyScout. System Artifacts. Added the ability to extract the Process List artifact.
- Oxygen Forensic® KeyScout. Added the ability to find Huawei HiSuite backups on Windows and macOS.
- Oxygen Forensic® KeyScout. Updated the ability to collect Viber data on Windows and macOS.

- Files. Added the ability to automatically detect similar images using the PhotoDNA technology.
- File Viewer for SQLite databases. Added the ability to recover deleted records and search in them.
- Key Evidence. Files. Added the OCR information on the right sidebar about the files that were recognized in the OCR section.
- Timeline. Messages. Added the Remote Party column.
- Timeline. Smart Filter. Added a new option "Show events that happened before and after the Key Evidence events".
- Social Graph. Communications panel. Added new options in the context menu.
- Social Graph. Added the ability to rename tabs.
- Snapshots. Added the information about the time when a screenshot or screen recording was made.
- General. Added the ability to add photos to the device information on the Home screen.
- Import. Added support for UFED Android Advanced Logical extractions.
- Export. Added the ability to export chats to Relativity Short Message Format.
- Export. Accelerated data export to PDF and RTF file formats.
- Enterprise license. Added the ability to borrow a license for a period longer than 30 days.
- Applications. Updated the ability to decrypt Signal backups from Android devices, including backups extracted via OxyAgent
- Applications. Added data parsing from over 400 new app versions from Apple iOS and Android devices. The total number of supported versions exceeds 21900.
- Applications. Business. Added data parsing from Microsoft Teams (3.4.1) from Apple iOS devices and Microsoft Teams (1416/1.0.0.2021022202) from Android devices.
- Applications. Business. Added data parsing from AliExpress (8.25.0) from Apple iOS devices and AliExpress (8.26.1) from Android devices.
- Applications. Business. Added data parsing from Wildberries (3.3.4.1) from Apple iOS devices and Wildberries (4.0.8000) from Android devices.
- Applications. Messengers. Added data parsing from BiP (3.74.7) from Apple iOS devices and BiP (3.74.9) from Android devices.
- Applications. Messengers. Updated data parsing from Google Duo (133.0.367046157.DR133\_RC02) from Android devices and Google Duo (130.0) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Imo (2021.03.4041) from Android devices and Imo (2021.4.1) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Discord (62.5) from Android devices and Discord (69.0) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Zangi Messenger (5.1.8) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from ChatSecure (5.0.3) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Imo Beta (2021.03.2012) from Android devices.
- Applications. Messengers. Updated data parsing from Kik Messenger (15.28.1) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Signal (5.9) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Skype (8.70) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Viber (14.9.0.5) from Android devices.
- Applications. Messengers. Updated data parsing from Hangouts (36.1) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from Facebook (313.0.0.35.119) from Android devices and Facebook (314.1) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from Likee (3.62.4) from Android devices and Likee (3.63.1) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from VK (6.31) from Apple iOS devices and VK (6.33) from Android devices.
- Applications. Social Networks. Updated data parsing from HouseParty (1.61.0) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from Instagram (184.0) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from LinkedIn (9.1.216) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from Clubhouse (0.1.32) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from Elyments (21.03.02.598) from Android devices.
- Applications. Social Networks. Updated data parsing from TikTok (18.8.41) from Android devices.
- Applications. Social Networks. Updated data parsing from Tumblr (19.2.0.00) from Android devices.
- Applications. Business. Updated data parsing from Speedtest (4.5.32) from Android devices and Speedtest (4.3.3) from Apple iOS devices.
- Applications. Business. Updated data parsing from Google (12.6.13.23.arm64) from Android devices and Google (156.0) from Apple iOS devices.
- Applications. Business. Updated data parsing from Google Contacts (3.42.1.365144226) from Android devices.
- Applications. Business. Updated data parsing from Google Tasks (1.24) from Apple iOS devices.
- Applications. Business. Updated data parsing from Gallery Vault (1.19.1) from Apple iOS devices.
- Applications. Business. Updated data parsing from Gmail (6.0.210222) from Apple iOS devices.
- Applications. Business. Updated data parsing from Google Docs (1.2021.06204) from Apple iOS devices
- Applications. Business. Updated data parsing from Google Keep (5.21.081.03.40) from Android devices.

- Applications. Business. Updated data parsing from Microsoft Remote Desktop (10.2.5) from Apple iOS devices.
- Applications. Business. Updated data parsing from Yandex Mail (6.6.3) from Android devices.
- Applications. Web Browsers. Updated data parsing from Google Chrome (89.0.4389.86) from Android devices and Google Chrome (87.0.4280.163) from Apple iOS devices.
- Applications. Web Browsers. Updated data parsing from DuckDuckGo (7.62.9) from Apple iOS devices.
- Applications. Web Browsers. Updated data parsing from Firefox (33.0) from Android devices.
- Applications. Web Browsers. Updated data parsing from Safari (14.0) from Apple iOS devices.
- Applications. Multimedia. Updated data parsing from FaceApp (4.4.0.2) from Android devices and FaceApp (5.7.0) from Apple iOS devices.
- Applications. Multimedia. Updated data parsing from Files By Google (1.0.357865958) from Android devices.
- Applications. Multimedia. Updated data parsing from Google Photos (5.32.0.362985730) from Android devices.

### Changes in version 13.4 (March 2021):

- Oxygen Forensic® Extractor. Added the ability to extract Discord data from unlocked Android devices via OxyAgent.
- Oxygen Forensic® Extractor. Added the ability to set a screen capture quality and scroll timeout in OxyAgent.
- Oxygen Forensic® Extractor. Added the ability to extract a full file system via checkm8 vulnerability from iPhone 6s, iPhone 6s Plus, iPhone SE, iPhone 7, iPhone 7 Plus, iPhone 8, iPhone 8 Plus, and iPhone X running iOS 14.5.
- Oxygen Forensic® Extractor. Enhanced the ability to bypass screen locks and run physical extraction of Android devices based on MT6739, MT6737 and MT6580 chipsets.
- Oxygen Forensic® Extractor. Updated the interface of the Huawei Android Dump method.
- Oxygen Forensic® Cloud Extractor. Added the ability to extract data from Discord via login/password and via token extracted from Windows and macOS computers.
- Oxygen Forensic® Cloud Extractor. Added the ability to extract data from TikTok via phone number, login/password, Google and Facebook account.
- Oxygen Forensic® Cloud Extractor. Added the ability to extract iCloud backups made from Apple iOS 14.5 devices.
- Oxygen Forensic® Cloud Extractor. Updated authorization algorithm for SecMail.
- Oxygen Forensic® Cloud Extractor. Updated authorization algorithm for Amazon Alexa.
- Oxygen Forensic® KeyScout. Added the ability to import and parse data from AD1 logical images made from Windows, macOS and Linux computers.
- Oxygen Forensic® KeyScout. System Artifacts. Added the ability to extract information about the Logon Sessions on Windows, macOS and Linux.
- Oxygen Forensic® KeyScout. System Artifacts. Added the ability to extract information about pending delete and rename files on Windows.
- Oxygen Forensic® KeyScout. System Artifacts. Added the ability to extract information about the system resource usage on Windows.
- Oxygen Forensic® KeyScout. System Artifacts. Added the ability to extract information about installed Windows updates.
- Oxygen Forensic® KeyScout. System Artifacts. Added the ability to extract information about indexed files on Windows.
- Oxygen Forensic® KeyScout. System Artifacts. Added the ability to extract information about all the applications installed on macOS.
- Oxygen Forensic® KeyScout. System Artifacts. Added the ability to extract macOS terminal history sessions.
- Oxygen Forensic® KeyScout. Added the ability to extract information about macOS disks and partitions.
- Oxygen Forensic® KeyScout. Added the ability to extract GroupMe data on Windows.
- Oxygen Forensic® KeyScout. Added the ability to extract the Discord token from Windows and macOS.
- Oxygen Forensic® KeyScout. Updated the ability to extract Internet Explorer data on Windows.
- Oxygen Forensic® KeyScout. Updated the ability to extract Outlook Mail data on Windows.
- Oxygen Forensic® KeyScout. Updated the ability to search Samsung SmartSwitch backups on Windows and macOS.
- General. Added the ability to view the list of supported devices in the Options menu.
- General. Added the ability to save hash sets in the Hash Set Manager.
- File Viewer for SQLite databases. Added the ability to search data through all the database tables.
- Snapshots. Added the ability to view screen recordings made from Android devices with OxyAgent.
- Export. Added the ability to export data within specified date and time ranges.
- Export. Accelerated data export.
- Import. Added the ability to calculate hash sets for imported backups and images.
- Applications. Added the ability to mark files as Key Evidence.
- Applications. Added data parsing from over 700 new app versions from Apple iOS and Android devices. The total number of supported versions exceeds 21400.
- Applications. Social Networks. Added data parsing from Clubhouse (0.1.30) from Apple iOS devices.

- Applications. Travel. Added data parsing from Lime (2.128.0) from Apple iOS devices and Lime (2.130.2) from Android devices.
- Applications. Travel. Added data parsing from Bird (4.125.0) from Apple iOS devices.
- Applications. Business. Added data parsing from Steam (2.0.20) from Apple iOS devices and Steam (2.3.12) from Android devices.
- Applications. Business. Added data parsing from Yahoo Mail (6.20) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Discord (62.5) from Android devices and Discord (61.0) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Viber (14.6.1) from Apple iOS devices and Viber (14.6.0.13) from Android devices.
- Applications. Messengers. Updated data parsing from WeChat (7.0.17) from Android devices.
- Applications. Messengers. Updated data parsing from Telegram (7.4.2) from Android devices.
- Applications. Messengers. Updated data parsing from Tamtam (2.17.0) from Android devices.
- Applications. Messengers. Updated data parsing from KakaoTalk (9.2.6) from Android devices.
- Applications. Messengers. Updated data parsing from Imo Beta (2021.01.2062) from Android devices.
- Applications. Messengers. Updated data parsing from Line (11.3.1) from Android devices.
- Applications. Messengers. Updated data parsing from TamTam (3.0.3) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from VIPole Private Messenger (2.1.3) from Android devices.
- Applications. Social Networks. Updated data parsing from TikTok (18.7.5) from Android devices and TikTok (18.7.0) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from Facebook (307.0) from Apple iOS devices and Facebook (308.0.0.42.118) from Android devices.
- Applications. Social Networks. Updated data parsing from Instagram (176.0) from Apple iOS devices and Instagram (176.0.0.38.116) from Android devices.
- Applications. Social Networks. Updated data parsing from VK (6.25.1) from Android devices and VK (6.26) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from Badoo (5.201.0) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from Elyments (21.02.02.593) from Android devices.
- Applications. Social Networks. Updated data parsing from HouseParty (1.58.0) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from Pinterest (9.7.0) from Android devices.
- Applications. Social Networks. Updated data parsing from Tinder (12.2.0) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from Tumblr (18.7.0.00) from Android devices.
- Applications. Social Networks. Updated data parsing from Twitter (8.82.0-release.00) from Android devices.
- Applications. Social Networks. Updated data parsing from OK (21.2.2) from Android devices.
- Applications. Business. Updated data parsing from Microsoft Outlook (4.2104.2) from Android devices.
- Applications. Business. Updated data parsing from Yahoo Mail (6.19.4) from Android devices.
- Applications. Business. Updated data parsing from GMail (2021.02.05.357775197.Release) from Android devices.
- Applications. Business. Updated data parsing from Google Tasks (2021.02.01.355344905.release) from Android devices.
- Applications. Business. Updated data parsing from Google Translate (6.17.0.02.357621627) from Android devices.
- Applications. Business. Updated data parsing from Google Keep (5.21.041.03.40) from Android devices.
- Applications. Business. Updated data parsing from Yandex.Disk (4.81.1) from Android devices and Yandex.Disk (3.34) from Apple iOS devices.
- Applications. Business. Updated data parsing from Yandex.Mail (6.4.1) from Android devices.
- Applications. Web Browsers. Updated data parsing from Google Chrome (87.0.4280.77) from Apple iOS devices and Google Chrome (88.0.4324.181) from Android devices.
- Applications. Web Browsers. Updated data parsing from Firefox (32.0) from Apple iOS devices.
- Applications. Web Browsers. Updated data parsing from JioPages (2.0.3) from Android devices.
- Applications. Travel. Updated data parsing from Uber (4.357.10002) from Android devices and Uber (3.445) from Apple iOS devices.
- Applications. Multimedia. Updated data parsing from Google Photos (5.31.0.359860651) from Android devices.
- Applications. Finance. Updated data parsing from Sberbank Online (11.10.0) from Android devices.

#### Changes in version 13.3 (February 2021):

- Oxygen Forensic® Extractor. Added the ability to bypass screen lock, perform physical acquisition, and decrypt physical dumps of Sony Android devices based on Mediatek chipsets and having FDE.
- Oxygen Forensic® Extractor. Added the ability to gain root rights and perform file system extraction of unlocked Android OS 7-9 devices based on Qualcomm chipsets.
- Oxygen Forensic® Extractor. Added the ability to make video screen recordings of Android device data with OxyAgent.

- Oxygen Forensic® Extractor. Added the ability to extract a full file system via checkm8 vulnerability from Apple devices with iOS 14.4.
- Oxygen Forensic® Extractor. Added the ability to extract a full file system via checkm8 vulnerability from iPhone 5s, iPhone 6 and iPhone 6 plus running iOS 12.5.1.
- Oxygen Forensic® Extractor. Updated the ability to extract Signal Messenger data from unlocked Android devices via OxyAgent.
- Oxygen Forensic® Cloud Extractor. Added the ability to extract the account details, chats, payment information and other data from Tinder via phone number or Google account.
- Oxygen Forensic® Cloud Extractor. Added the ability to extract the account details, chats, preferences, files and other data from OkCupid via phone number, token or login/password.
- Oxygen Forensic® Cloud Extractor. Added the ability to extract iCloud backups made from Apple iOS 14.4 devices.
- Oxygen Forensic® Cloud Extractor. Added the ability to extract Dropbox data via token extracted from Windows OS.
- Oxygen Forensic® KeyScout. Added support for macOS Big Sur v 11.1 for computers based on ARM and Intel.
- Oxygen Forensic® KeyScout. Added the ability to import and extract data from file system ZIP archives made from Windows, macOS and Linux computers.
- Oxygen Forensic® KeyScout. Added the ability to search and collect data by most common file extensions.
- Oxygen Forensic® KeyScout. Added support for dark mode for macOS.
- Oxygen Forensic® KeyScout. Added the ability to search Samsung SmartSwitch backups on computers.
- Oxygen Forensic® KeyScout. Added the ability to collect Discord data on Windows and macOS.
- Oxygen Forensic® KeyScout. Added the ability to collect VIPole data on Windows, macOS and Linux.
- Oxygen Forensic® KeyScout. Added the ability to collect Element Messenger data on Windows, macOS and Linux.
- Oxygen Forensic® KeyScout. Added the ability to collect Zello data on Windows.
- Oxygen Forensic® KeyScout. Added the ability to extract media files from Telegram Messenger encrypted cache from Windows and macOS.
- Oxygen Forensic® KeyScout. Added the ability to collect Dropbox password and token on Windows.
- Oxygen Forensic® KeyScout. Updated the ability to collect Outlook data on Windows and macOS.
- Search. Added the ability to create face sets and search for similar faces in one or several extractions.
- Search. Added the ability to hide irrelevant search results.
- Search. Optimized the ability to search by IP addresses and URL links.
- Timeline. Added information about the activity of applications extracted from Apple iOS and Android devices as well from computers.
- Timeline. Added a tree like structure for an event filter on the left sidebar.
- Wireless Connections. Added the ability to receive geo coordinates from MAC addresses via WiGLE service.
- Data Import. Added the ability to import and analyze Call Data Records.
- Export. Added the ability to select a preview size for PDF and RTF reports in Export settings.
- Export. Added the ability to export file hashes separately.
- Export. Added the ability to save and share custom report settings.
- Export. Added data export to formatted HTML format.
- Backup Import. Updated support for XRY Android logical, XRY Android physical and XRY Apple logical images.
- Applications. Added data parsing from over 900 new app versions from Apple iOS and Android devices. The total number of supported versions exceeds 20,500.
- Applications. Social Networks. Added data parsing from OkCupid (49.2.0) from Android devices and OkCupid (49.2.0) from Apple iOS devices.
- Applications. Social Networks. Added data parsing from HouseParty (1.53.7) from Android devices and HouseParty (1.55.0) from Apple iOS devices.
- Applications. Business. Added data parsing from GetContact (5.2.3) from Android devices and GetContact (4.2.0) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Signal (5.2.3) from Android devices and Signal (5.3.1) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Imo (2021.01.2031) from Android devices and Imo (2021.2.1) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Workplace chat (297.0.0.4.119) from Android devices and Workplace chat (297.0) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Imo Beta (2021.01.1032) from Android devices.
- Applications. Messengers. Updated data parsing from WeChat (7.0.15) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Skype (8.66) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Viber (14.6.0.13) from Android devices.
- Applications. Messengers. Updated data parsing from Line (11.0.1) from Android devices.
- Applications. Social Networks. Updated data parsing from Tinder (11.31.0) from Apple iOS devices and Tinder (11.30.1) from Android devices.

- Applications. Social Networks. Updated data parsing from Badoo (5.204.1) from Android devices and Badoo (5.199.0) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from Facebook (302.0.0.45.119) from Android devices and Facebook (302.1) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from Workplace (303.0.0.34.122) from Android devices and Workplace (301.0) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from LinkedIn (4.1.533) from Android devices.
- Applications. Social Networks. Updated data parsing from Instagram (172.0) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from Tumblr (17.7.0.00) from Android devices.
- Applications. Social Networks. Updated data parsing from Twitter (8.78.0-release.00) from Android devices
- Applications. Social Networks. Updated data parsing from OK (21.1.19) from Android devices.
- Applications. Social Networks. Updated data parsing from VK (6.20.1) from Apple iOS devices.
- Applications. Web Browsers. Updated data parsing from DuckDuckGo (5.74.0) from Android devices.
- Applications. Web Browsers. Updated data parsing from Firefox (84.1.4) from Android devices.
- Applications. Business. Updated data parsing from GMail (2020.12.27.353764270.Release) from Android devices.
- Applications. Business. Updated data parsing from Google (11.43.6.23) from Android devices.
- Applications. Business. Updated data parsing from Google Keep (5.20.511.03.40) from Android devices.
- Applications. Business. Updated data parsing from Google Tasks (2021.01.04.349958603.release) from Android devices.
- Applications. Business. Updated data parsing from Google Translate (6.16.0.03.352678460) from Android devices.
- Applications. Business. Updated data parsing from Yahoo Mail (6.10.5) from Android devices.
- Applications. Business. Updated data parsing from Yandex Mail (5.8.1) from Android devices.
- Applications. Business. Updated data parsing from Zynn (2.3.0.10500301) from Android devices.
- Applications. Business. Updated data parsing from Microsoft Outlook (4.2048.4) from Android devices.
- Applications. Multimedia. Updated data parsing from Gallery Vault (3.19.7) from Android devices.
- Applications. Multimedia. Updated data parsing from Files By Google (1.0.352915835) from Android devices.
- Applications. Multimedia. Updated data parsing from Google Photos (5.26.0.352644055) from Android devices.

## Changes in version 13.2.0.100 (December 2020):

• Oxygen Forensic® Extractor. Fixed the issue with Samsung Exynos Dump method.

## Changes in version 13.2 (December 2020):

- Backup Import. Added the ability to import and parse contacts, calls, messages, cached app pictures, apk files, Samsung Web Browser data, Wi-Fi and Access points from Samsung Smart Switch backups. Decryption is possible with a known passcode.
- Oxygen Forensic® Extractor. Added the ability to gain root rights and perform file system extraction of Android OS 10 devices with File-Based Encryption.
- Oxygen Forensic® Extractor. Added the ability to extract the list of <u>apk files</u> of installed apps from Android devices via OxyAgent.
- Oxygen Forensic® Extractor. Added the ability to extract the information about Android device <u>file</u> <u>structure</u> via OxyAgent.
- Oxygen Forensic® Extractor. Added the ability to extract via OxyAgent the information about the second IMEI of dual SIM devices running Android OS up to version 9.
- Oxygen Forensic® Extractor. Added the ability to extract a full file system via checkm8 vulnerability from iPhone 7, iPhone 7 Plus, iPhone 8, iPhone 8 Plus, iPhone X running iOS 14.0 -14.3.
- Oxygen Forensic® Extractor. Added the ability to extract a full file system from iPhone 5S via checkm8 vulnerability.
- Oxygen Forensic® Extractor. Extended the ability to extract a full file system via checkm8 vulnerability from iPhone 6, iPhone 6 Plus running iOS 12.2 -12.3.x and 12.5, iPhone 6S, iPhone 6S Plus, iPhone SE, iPad 5 gen, iPad mini 4 running iOS 12.1.4 12.3.x and 14.3.
- Oxygen Forensic® Extractor. Fixed the ability to run logical extraction on Android 4.4.2 devices via OxyAgent.
- Oxygen Forensic® Cloud Extractor. Added the ability to extract the account information, contacts, chats, calls, passwords, notes and other data from <u>VIPole</u>.
- Oxygen Forensic® Cloud Extractor. Added the ability to extract the account information, contacts, notes, notebooks, chats and other available data from Evernote.
- Oxygen Forensic® Cloud Extractor. Added preliminary support for iCloud backups made from Apple iOS 14.3 devices.
- Oxygen Forensic® Cloud Extractor. Updated the ability to decrypt WhatsApp backups via phone number or token.
- Oxygen Forensic® Cloud Extractor. Updated the ability to extract attachments from Outlook Mail.
- Oxygen Forensic® Cloud Extractor. Updated 2FA support for Google services.
- Oxygen Forensic® KeyScout. Added the ability to collect Zalo data on Windows and macOS.

- Oxygen Forensic® KeyScout. Added the ability to collect Tor Browser data on Windows, macOS and Linux.
- Oxygen Forensic® KeyScout. Added the ability to collect Adium data on macOS.
- Oxygen Forensic® KeyScout. Added the ability to collect Pidgin data on Windows and Linux.
- Oxygen Forensic® KeyScout. Added the ability to collect Gajim data on Windows and Linux.
- Oxygen Forensic® KeyScout. Added the ability to search and collect data within the specified <u>time</u> <u>period</u> or files located at the specified path.
- Oxygen Forensic® KeyScout. Added the ability to search and collect data from Documents, Desktop, and Downloads folders.
- Oxygen Forensic® KeyScout. Added the ability to extract the detailed information about all the Windows system disks and partitions.
- Oxygen Forensic® KeyScout. Updated the ability to collect Evernote data on Windows and macOS.
- Oxygen Forensic® KeyScout. Updated the ability to extract data from WhatsApp Desktop on Windows and macOS.
- Oxygen Forensic® KeyScout. Updated the ability to extract data from Viber Desktop from Windows.
- Oxygen Forensic® KeyScout. Updated the ability to extract data from Firefox on Windows, macOS and
- Image Categorization. Added the ability to automatically categorize maps and QR/Barcodes.
- Faces. Added the ability to recognize faces of people wearing masks, glasses and hats.
- Timeline. Added the ability to show de-duplicated messages in Timeline.
- Export. Added data export to formatted XLS format.
- Export. Added the ability to export device data in several threads.
- Export. Chats in Conversation View. Added the ability to export chats to separate files in XLSX format.
- Import. Improved detection of office documents that include Word Document, Excel Table, PowerPoint Presentation, and OpenDocument.
- Search. Improved data search by geo coordinates, emails and MAC addresses.
- Search. Fixed the problem when no search results were shown if Parsed Data and File Content checkboxes were checked.
- File Viewer. Added the ability to preview values according to their type in the Converter.
- Applications. Added data parsing from over 800 new app versions from Apple iOS and Android devices. The total number of supported versions exceeds 19,600.
- Applications. Social Networks. Added data parsing from Parler (2.6.6) from Android devices and Parler (2.37) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from VIPole Private Messenger (2.1.3) from Android devices and VIPole Private Messenger (2.6.7) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Line (10.19.0) from Apple iOS devices and Line (10.21.3) from Android devices.
- Applications. Messengers. Updated data parsing from Signal (3.22.2) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Wickr Me (5.66.10) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Threema (4.43) from Android devices.
- Applications. Messengers. Updated data parsing from WhatsApp (2.20.206.24) from Android devices.
- Applications. Messengers. Updated data parsing from Telegram (7.2.1) from Android devices.
- Applications. Messengers. Updated data parsing from Tamtam (2.9.8) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Zalo (20.11.01) from Android devices.
- Applications. Messengers. Updated data parsing from Android Messages (7.0.037) from Android devices.
- Applications. Messengers. Updated data parsing from Skype (8.66.0.76) from Android devices.
- Applications. Messengers. Updated data parsing from Viber (14.2.0.26) from Android devices.
- Applications. Messengers. Updated data parsing from Xabber (2.6.645) from Android devices.
- Applications. Social Networks. Updated data parsing from LinkedIn (9.1.200) from Apple iOS devices and LinkedIn (4.1.515) from Android devices.
- Applications. Social Networks. Updated data parsing from Tinder (11.27.0) from Android devices and Tinder (11.29.0) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from Instagram (166.1.0.42.245) from Android devices and Instagram (166.0) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from Facebook (299.0.51.236) from Android devices and Facebook (299.0) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from Twitter (8.73.0-release.00) from Android devices.
- Applications. Social Networks. Updated data parsing from Pinterest (8.44.0) from Android devices.
- Applications. Social Networks. Updated data parsing from Elyments (20.10.1) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from VK (6.18) from Android devices.
- Applications. Social Networks. Updated data parsing from Tumblr (17.6.0.00) from Android devices.
- Applications. Social Networks. Updated data parsing from Odnoklassniki (20.12.7) from Android devices.
- Applications. Web Browsers. Updated data parsing from Firefox (29.0) from Apple iOS devices and Firefox (83.1.0) from Android devices.
- Applications. Web Browsers. Updated data parsing from Google Chrome (86.0.4240.185) from Android devices.

- Applications. Business. Updated data parsing from Google Translate (6.14.0) from Android devices and Google Translate (6.14) from Apple iOS devices.
- Applications. Business. Updated data parsing from Smart Recorder (1.10.3) from Android devices.
- Applications. Business. Updated data parsing from Evernote (8.24.6) from Apple iOS devices.
- Applications. Business. Updated data parsing from Google (11.36.10.23) from Android devices.
- Applications. Business. Updated data parsing from Google Docs (1.20.402.06.44) from Android devices.
- Applications. Business. Updated data parsing from Google Keep (5.20.461.01.40) from Android devices.
- Applications. Business. Updated data parsing from Yandex.Mail (4.25.0) from Apple iOS devices.
- Applications. Multimedia. Updated data parsing from Files By Google (1.0.337963432) from Android devices.
- Applications. Multimedia. Updated data parsing from Gallery Vault (3.19.2) from Android devices.
- Applications. Multimedia. Updated data parsing from Google Photos (5.22.0.345543303) from Android devices.

#### Changes in version 13.1 (November 2020):

- Oxygen Forensic® Extractor. Added the ability to bypass screen lock, perform physical acquisition, and decrypt physical dumps of Android devices based on Mediatek MT6739 and MT6580 chipsets.
- Oxygen Forensic® Extractor. Added the ability to perform file system <u>extraction</u> of pre-rooted Android devices including those with File Based Encryption and Android OS 10.
- Oxygen Forensic® Extractor. Added the ability to extract Signal Messenger data via OxyAgent utility.
- Oxygen Forensic® Extractor. Added the ability to extract a full file system via checkm8 vulnerability from iPhone 6S, iPhone 6S Plus, iPhone SE (1st gen), iPad (5th gen), iPad mini 4 running iOS 14.2.
- Oxygen Forensic® Extractor. Improved the ability to bypass screen lock, do physical extraction and decrypt physical dumps of Android devices based on Qualcomm MSM8917, MSM8937, MSM8940 and MSM8953 chipsets.
- Oxygen Forensic® Extractor. Improved the ability to extract WhatsApp data via OxyAgent utility.
- Oxygen Forensic® Extractor. Improved the ability to extract and decrypt data from Huawei devices based on Kirin chipsets.
- Oxygen Forensic® Cloud Extractor. Added the ability to extract the account information, contacts and mails from <a href="SecMail">SecMail</a> via login/password.
- Oxygen Forensic® Cloud Extractor. Added the ability to extract visited webpages, bookmarks, opened tabs, logins and passwords and other data from Firefox browser via login/password or token found in Apple iOS devices and on Windows computers.
- Oxygen Forensic® Cloud Extractor. Added extraction of iCloud Backups made from Apple iOS 14.2 devices.
- Oxygen Forensic® Cloud Extractor. Added support for 2FA via a code received to the trusted device for Samsung services.
- Oxygen Forensic® Cloud Extractor. Added support for 2FA via a backup code for Firefox Lockwise.
- Oxygen Forensic® Cloud Extractor. Updated the ability to extract messages from LinkedIn.
- Oxygen Forensic® Cloud Extractor. Updated the ability to decrypt WhatsApp backups via phone number.
- Oxygen Forensic® Cloud Extractor. Updated the algorithm of authorization and extraction for WhatsApp Cloud.
- Oxygen Forensic® KeyScout. Added the ability to extract the Recent Items artifact from Windows OS.
- Oxygen Forensic® KeyScout. Added the ability to extract files from the Recycle Bin on Windows OS.
- Oxygen Forensic® KeyScout. Added the ability to extract the history of WinRAR operations on Windows
- Oxygen Forensic® KeyScout. Added the ability to search files by various criteria entered in the Settings
- Oxygen Forensic® KeyScout. Added the ability to collect Slack data on Windows and macOS.
- Oxygen Forensic® KeyScout. Added the ability to collect OneDrive data on Windows and macOS.
- Oxygen Forensic® KeyScout. Added the ability to collect Evernote data on Windows and macOS.
- Oxygen Forensic® KeyScout. Updated support for Telegram Desktop v.2.4 on Windows, macOS and Linux
- Oxygen Forensic® KeyScout. Updated support for Windows Events file.
- Oxygen Forensic® KeyScout. Updated the interface of the KeyScout Settings.
- Optical Character Recognition. Added data export from the section.
- Export. Added data export to RTF format.
- Timeline. Messages. Added the Smart Filter button that shows all the contacts who have mentioned a specified word or phrase.
- General. Added decryption of encryption keys stored in the Android Keystore of Huawei devices based on Kirin chipsets and running Android OS 9-10.
- General. Added the ability to include Oxygen Forensic® Viewer while exporting extracted data to OFBX format.
- OS Artifacts. Added the ability to view the Android Applications activity information extracted from ContextLog.db file of Samsung devices.
- Contacts. If a call or message has no phone number the Owner entry will be assigned to a contact.

- Applications. Added extraction of Signal Messenger backups from Android physical dumps and ADB backups. Decryption is available via known password.
- Applications. Added data parsing from over 800 new app versions from Apple iOS and Android devices. The total number of supported versions exceeds 18,800.
- Applications. Messengers. Added data parsing from Wire (3.58) from Apple iOS devices and Wire (3.57.948) from Android devices.
- Applications. Messengers. Added data parsing from Zalo (20.10.02) from Apple iOS devices and Zalo (20.09.01.r3) from Android devices.
- Applications. Messengers. Added data parsing from GroupMe (1.3.0.347) from Android devices.
- Applications. Social Networks. Added data parsing from Elyments (20.10.1) from Apple iOS devices and Elyments (20.10.01.554) from Android devices.
- Applications. Web Browsers. Added data parsing from JioPages (1.4.7) from Android devices.
- Applications. Messengers. Updated data parsing from Signal Messenger (4.72.5) from Android devices based on Kirin chipset.
- Applications. Messengers. Updated data parsing from Facebook Messenger (282.0) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from GroupMe (5.50.7) from Android devices.
- Applications. Messengers. Updated data parsing from Line (10.15.1) from Android devices.
- Applications. Messengers. Updated data parsing from Skype (8.64.0.83) from Android devices and Skype (8.64) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Viber (13.9.0.2) from Android devices and Viber (14.0) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from TamTam (2.14.1) from Android devices and Tamtam (2.9.7) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from ICQ (9.3) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from ChatSecure (5.0.2) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from TextNow (20.41.0) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Threema (4.6.2) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Google Duo (108.0) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from Tumblr (17.1.0.00) from Android devices and Tumblr (17.1) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from Pinterest (8.36.0) from Android devices and Pinterest (8.39) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from Twitter (8.67.0-release.00) from Android devices and Twitter (8.37) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from Snapchat (10.85.5.77) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from VK (6.12) from Android devices and VK (6.14.1) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from Instagram (165.1.0.29.119) from Android devices and Instagram (164.0) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from Facebook (284.0.0.50.107) from Android devices and Facebook (294.0) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from LinkedIn (4.1.509) from Android devices.
- Applications. Social Networks. Updated data parsing from OK (20.10.4) from Android devices and OK (8.54.3) from Apple iOS devices.
- Applications. Business. Updated data parsing from K9-mail (5.600) from Android devices.
- Applications. Business. Updated data parsing from Evernote (8.13.3) from Android devices.
- Applications. Business. Updated data parsing from Slack (20.09.10.0) from Android devices and Slack (20.10.20) from Apple iOS devices.
- Applications. Business. Updated data parsing from GMail (2020.09.06.332325283.Release) from Android devices.
- Applications. Business. Updated data parsing from Google Docs (1.2020.36201) from Apple iOS devices and Google Docs (1.20.402.06.40) from Android devices.
- Applications. Business. Updated data parsing from Google Keep (2.2020.36202) from Apple iOS devices and Google Keep (5.20.401.03.40) from Android devices.
- Applications. Business. Updated data parsing from Google Tasks (2020.09.21.332753069.release) from Android devices.
- Applications. Business. Updated data parsing from Yandex.Mail (5.3.1) from Android devices.
- Applications. Multimedia. Updated data parsing from Files By Google (1.0.329324986) from Android devices.
- Applications. Multimedia. Updated data parsing from Google Photos (5.16.0.338720265) from Android devices.
- Applications. Multimedia. Updated data parsing from SoundHound (9.4.6.1) from Android devices.
- Applications. Multimedia. Updated data parsing from YouTube (15.41.2) from Apple iOS devices.
- Applications. Web Browsers. Updated data parsing from Firefox (81.1.2) from Android devices.
- Applications. Travel. Updated data parsing from Uber (4.334.10002) from Android devices.

• General. Added support for over 500 new devices: iPhone 12 mini, iPhone 12, iPhone 12 Pro, iPhone 12 Pro Max, Samsung Galaxy S20 FE, Samsung Galaxy S20 FE 5G, etc. The total number of supported devices exceeds 39,000.

### Changes in version 13.0.1 (September 2020):

- Oxygen Forensic® Extractor. Added the ability to extract a full file system via checkm8 vulnerability from Phone 6, iPhone 6+, and iPhone SE running iOS 14.0 14.2 (Beta).
- Oxygen Forensic® Extractor. Added the ability to bypass screen lock, perform physical extraction and decrypt physical dumps of 45 new Samsung devices based on Exynos chipsets: Samsung Galaxy A7 2018 (SM-A750GN), Samsung Galaxy S8 (SM-G950FD), Samsung Galaxy J3 2018 (SM-J337W), Samsung Galaxy Note 8 (SM-N950FD), Samsung Galaxy View2 (SM-T927A), etc.The total number of supported Samsung Exynos devices exceeds 120.
- Oxygen Forensic® Extractor. Improved Huawei Android Dump method.

## Changes in version 13.0 (September 2020):

- Optical Character Recognition. Added the ability to automatically convert text on photos into machine-encoded text. The feature is available at no additional charge.
- Oxygen Forensic® Extractor. Added the ability to bypass screen lock, perform physical extraction and decrypt physical dumps of Samsung devices with Android OS 7-9 and based on <a href="Exynos chipsets">Exynos chipsets</a>.
- Oxygen Forensic® Extractor. Added the ability to extract a full file system from iPhone 6 Plus (iOS 12.4.4 12.4.8) and iPad Mini 4 (iOS 12.4.4 12.4.8.) via checkm8 vulnerability.
- Oxygen Forensic® Extractor. Added the ability to extract additional WhatsApp data via OxyAgent: audio and video calls, full information about contacts participating in group chats, contact pictures, etc.
- Oxygen Forensic® Extractor. Updated support for HiSuite backups created by desktop HiSuite software.
- Oxygen Forensic® Cloud Extractor. Added the ability to extract the account information, contacts, conferences and chats from <a href="Zoom">Zoom</a> via login/password or token found in Apple iOS and Android devices.
- Oxygen Forensic® Cloud Extractor. Added the ability to extract the account information, saved logins and passwords from Firefox Lockwise via login/password or token found in Apple iOS devices and on PC.
- Oxygen Forensic® Cloud Extractor. Added the ability to extract complete Huawei Cloud Backups via login/password, token, QR code or SMS code.
- Oxygen Forensic® Cloud Extractor. Added the ability to extract video calls from Telegram.
- Oxygen Forensic® Cloud Extractor. Added the ability to authorize in Google Drive via tokens from Google Backup and Sync app found on PC.
- Oxygen Forensic® Cloud Extractor. Added verification support for Mi Cloud service.
- Oxygen Forensic® Cloud Extractor. Updated the ability to authorize in WhatsApp Cloud via phone number.
- Oxygen Forensic® Cloud Extractor. Updated the ability to decrypt local and cloud WhatsApp backups via phone number.
- Oxygen Forensic® Cloud Extractor. Updated the ability to extract chats from Wickr Me.
- Oxygen Forensic® Cloud Extractor. Updated 2FA support for Google and Apple services.
- Oxygen Forensic® Cloud Extractor. Updated the ability to extract the activity history from Google Home and Google My Activity.
- Oxygen Forensic® Cloud Extractor. Updated the ability to extract workout and sleep history from Samsung Health.
- Oxygen Forensic® KeyScout. Added the ability to run the KeyScout with the escalated privileges for full data extraction.
- Oxygen Forensic® KeyScout. Added the ability to collect information about applications that have been run on Windows OS from Prefetch files.
- Oxygen Forensic® KeyScout. Added the ability to extract events from the Windows system registry.
- Oxygen Forensic® KeyScout. Added extraction and parsing of \$MFT file.
- Oxygen Forensic® KeyScout. Added the ability to collect Telegram data on macOS.
- Oxygen Forensic® KeyScout. Added the ability to collect Dropbox data on Windows OS and macOS.
- Oxygen Forensic® KeyScout. Added the ability to collect Google Sync data on Windows OS and macOS.
- Oxygen Forensic® KeyScout. Added the ability to collect Skype data macOS and updated the ability to collect Skype data on Windows OS.
- Oxygen Forensic® KeyScout. Updated the ability to collect WhatsApp data on Windows OS and macOS.
- Oxygen Forensic® KeyScout. Updated the ability to collect Telegram Desktop data on Windows OS and macOS.
- General. Added System Artifacts section that shows all the system files extracted by Oxygen Forensic® KeyScout.
- General. Added the ability to import and parse <u>Meiya Pico extractions</u> made from Apple iOS and Android devices.
- OS Artifacts. Added the ability to view the Android <u>Applications activity</u> information in the OS Artifacts section
- Search. Added the ability to search data using saved <u>search templates</u>.
- Social Graph. Added the ability to save the Social Graph state.

- Oxygen Forensic® Maps. Added the ability to open multiple OMPRJ files.
- Oxygen Forensic® Maps. Improved date and time filter.
- Export. Added the ability to export extracted data to RSMF(Relativity Short Message format) format.
- Export. Added the ability to add fields at data export.
- Export. Added the ability to configure field order before data export.
- Export. Added the ability to select which fields of Timeline and Key Evidence sections will be included in a data report.
- Applications. Added the ability to decrypt WhatsApp iCloud and WhatsApp Google backups with the WhatsApp Cloud token saved after WhatsApp Cloud extraction.
- Applications. Added data parsing from over 800 new app versions from Apple iOS and Android devices. The total number of supported versions exceeds 18.000.
- Applications. Social Networks. Added data parsing from Zynn (1.3.3) from Apple iOS devices and Zynn (1.3.0.347) from Android devices.
- Applications. Business. Added data parsing from Gallery Vault (1.18.1) from Apple iOS devices and Gallery Vault (3.18.14) from Android devices.
- Applications. Business. Added data parsing from Google (123.4) from Apple iOS devices and Google (11.26.7) from Android devices.
- Applications. Business. Added data parsing from Firefox Lockwise (1.7.3) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from WhatsApp (2.20.92) from Apple iOS devices and WhatsApp (2.20.197) from Android devices.
- Applications. Messengers. Updated data parsing from WhatsApp backup (crypt12) from Android devices.
- Applications. Messengers. Updated data parsing from WhatsApp Business (2.20.39) from Android devices and WhatsApp Business (2.20.90) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Telegram (7.0) from Apple iOS devices and Telegram (7.0.0) from Android devices.
- Applications. Messengers. Updated data parsing from Telegram X (0.22.8.1361) from Android devices.
- Applications. Messengers. Updated data parsing from KakaoTalk (8.9.7) from Android devices and KakaoTalk (8.9.8) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Facebook Messenger (278.0) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Skype (8.63) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Viber (13.6.1) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from ICQ (9.6(824680)) from Android devices.
- Applications. Messengers. Updated data parsing from TamTam (2.9.5) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Android Messages (6.4.044) from Android devices.
- Applications. Messengers. Updated data parsing from Google Duo (102.0) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from imo beta free calls and text (2020.07.2061) from Android devices.
- Applications. Messengers. Updated data parsing from Line (10.13.2) from Android devices and Line (10.14.0) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Hangouts (35.2) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from Twitter (8.35) from Apple iOS devices and Twitter (8.59.0-release.00) from Android devices.
- Applications. Social Networks. Updated data parsing from Snapchat (10.85.5.77) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from Facebook (286.0) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from Instagram (158.0.0.30.123) from Android devices and Instagram (158.0) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from LinkedIn (9.1.191) from Apple iOS devices and LinkedIn (4.1.483.1) from Android devices.
- Applications. Social Networks. Updated data parsing from VK (6.10.2) from Apple iOS devices and VK (6.9.1) from Android devices.
- Applications. Social Networks. Updated data parsing from OK (8.52.1) from Apple iOS devices and OK (20.8.18) from Android devices.
- Applications. Web Browsers. Updated data parsing from UC Browser (13.2.8.1301) from Android devices.
- Applications. Web Browsers. Updated data parsing from Firefox (28.1) from Apple iOS devices.
- Applications. Web Browsers. Updated data parsing from Google Chrome (85.0.4183.81) from Android devices.
- Applications. Business. Updated data parsing from Gmail (6.0.200810) from Apple iOS devices and GMail (2020.08.09.327326543.Release) from Android devices.
- Applications. Business. Updated data parsing from Google Docs (1.2020.34204) from Apple iOS devices and Google Docs (1.20.342.03.44) from Android devices.
- Applications. Business. Updated data parsing from Google Keep (2.2020.32203) from Apple iOS devices and Google Keep (5.20.341.08.40) from Android devices.

- Applications. Business. Updated data parsing from Google Tasks (2020.06.29.321121334.release) from Android devices.
- Applications. Business. Updated data parsing from OneDrive (11.46.12) from Apple iOS devices.
- Applications. Business. Updated data parsing from Speedtest (4.2.6) from Apple iOS devices and Speedtest (4.5.12) from Android devices.
- Applications. Business. Updated data parsing from Yandex.Mail (5.2.3) from Android devices and Yandex.Mail (4.20.0) from Apple iOS devices.
- Applications. Business. Updated data parsing from Yandex Go (600.3.0) from Apple iOS devices.
- Applications. Multimedia. Updated data parsing from YouTube (15.29.35) from Android devices and YouTube (15.34.3) from Apple iOS devices.
- Applications. Multimedia. Updated data parsing from Google Photos (5.9) from Apple iOS devices.
- Applications. Multimedia. Updated data parsing from Google Photos (5.8.0.328056511) from Android devices.
- Applications. Multimedia. Updated data parsing from Files By Google (1.0.325710463) from Android devices.
- Applications. Multimedia. Updated data parsing from Imgur (2020.7) from Apple iOS devices.
- Applications. Multimedia. Updated data parsing from Likee (3.42.0) from Apple iOS devices.
- Applications. Fitness. Updated data parsing from Endomondo (20.8.19) from Android devices and Endomondo (18.10.1) from Apple iOS devices.
- Applications. Navigation. Updated data parsing from Waze (4.66) from Apple iOS devices.
- Applications. Navigation. Updated data parsing from Google Maps (5.50) from Apple iOS devices.
- Applications. Travel. Updated data parsing from Expedia (20.34) from Apple iOS devices.
- General. Added support for over 500 new Android devices: Oysters AntarcticE, Xiaomi Mi 10 Lite\_5G, ZTE BLADE V8 MINI, Samsung Galaxy Tab S7\_ 5G, Samsung Galaxy Note20 Ultra 5G, Samsung Galaxy Z Fold2 5G, Samsung Galaxy Z Flip 5G, etc. The total number of supported devices is 38.611.

### Changes in version 12.6 (July 2020):

- Oxygen Forensic® Extractor. Added the ability to bypass screen lock, perform physical extraction and decrypt physical dumps of <u>Huawei</u> devices with Android OS 9-10 and based on Kirin 659, 810, 960, 990 and 990 5G chipsets.
- Oxygen Forensic® Extractor. Android logical extraction. Added the ability to extract WhatsApp and WhatsApp Business contacts and chats via OxyAgent.
- Oxygen Forensic® Extractor. Added the ability to extract a full file system from iPhone 5s through iPhone X and the corresponding iPad devices using the <a href="mailto:checkm8">checkm8</a> vulnerability.
- Oxygen Forensic® Extractor. Extended <u>selective</u> data extraction from Apple iOS jailbroken devices. Now you can select and extract general sections that include contacts, mail, messages, event log, etc.
- Oxygen Forensic® Cloud Extractor. Added the ability to authorize and extract data from Telegram and Telegram Passport services via <a href="QR code">QR code</a>.
- Oxygen Forensic® Cloud Extractor. Added the ability to authorize and extract data from Huawei Cloud Data via QR code and via phone number.
- Oxygen Forensic® Cloud Extractor. Added extraction of iCloud Backups made from Apple iOS 13 and 14 devices.
- Oxygen Forensic® Cloud Extractor. Added 2FA support for Samsung cloud services.
- Oxygen Forensic® Cloud Extractor. Added the ability to configure Proxy settings for DJI Cloud and SkyPixel services.
- Oxygen Forensic® Cloud Extractor. Added the ability to configure Proxy settings with authorization for Samsung Cloud Backup, Samsung Cloud Data, Samsung Secure Folder and My Parrot Cloud services.
- Oxygen Forensic® Cloud Extractor. Updated 2FA support for Facebook, Slack and VKontakte services.
- Oxygen Forensic® Cloud Extractor. Updated support for iCloud Photo Stream.
- Oxygen Forensic® Cloud Extractor. Updated the ability to extract Line and Line Keep data via QR code.
- Oxygen Forensic® Cloud Extractor. Updated authorization algorithms for Google Calendars and JIO cloud.
- Oxygen Forensic® KeyScout. Added the ability to extract application activity information from the ActivitiesCache file from Windows OS 10.
- Oxygen Forensic® KeyScout. Added the ability to extract the information of executed applications from the Amcache file from Windows OS.
- Oxygen Forensic® KeyScout. Added the ability to extract all the information about the system accounts and groups from Windows OS.
- Oxygen Forensic® KeyScout. Added the ability to extract the information about the Alternative Data Streams from Windows OS.
- Oxygen Forensic® KeyScout. Added the ability to extract the list of installed applications from Windows OS.
- Oxygen Forensic® KeyScout. Added the ability to collect Zoom data on Windows OS and macOS.
- Oxygen Forensic® KeyScout. Added the ability to collect Facebook Messenger data on Windows OS and macOS.
- Oxygen Forensic® KeyScout. Added the ability to collect Amazon Photos data on Windows OS and macOS.
- Image Categorization. Added recognition of two new categories vehicles and chats.

- Oxygen Forensic® Maps. Added the ability to set custom time zones in the Options menu.
- General. Updated support for HiSuite backups.
- Contacts. Added the ability to set custom contact aliases.
- Contacts. Added the ability to open selected contacts in the Social Graph.
- Social Graph. Added new options in the context menu.
- Social Graph. Added the ability to open any Social Graph mode in a separate tab.
- File Viewer for SQLite databases. Added the ability to export the current table, all tables and the results of SQL queries.
- File Viewer for SQLite databases. Added automatic detection of text and binary files.
- File Viewer. Added the ability to open and view the Windows registry files.
- Reports. Added snapshots that are made with OxyAgent in Android devices.
- Applications. Added the list of all the supported applications in the Options menu.
- Applications. Added data parsing from over 900 new app versions from Apple iOS and Android devices. The total number of supported versions exceeds 17.100.
- Applications. Business. Added data parsing from TeamViewer (15.7.1) from Apple iOS devices.
- Applications. Business. Added data parsing from Yandex (11.10) from Android OS devices and Yandex (35.0) from Apple iOS devices.
- Applications. Web Browsers. Added data parsing from DuckDuckGo Browser (5.59.1) from Android OS devices and DuckDuckGo Browser (7.48.1) from Apple iOS devices.
- Applications. Web Browsers. Added data parsing from Microsoft Edge (45.03.2.4955) from Android devices and Microsoft Edge (45.6.1) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from WhatsApp (2.20.70) from Apple iOS devices and WhatsApp (2.20.194) from Android devices.
- Applications. Messengers. Updated data parsing from Kik Messenger (15.23.0) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Signal (3.11.1) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from TamTam (2.14.0) from Android devices.
- Applications. Messengers. Updated data parsing from Telegram (6.2.1) from Apple iOS devices and Telegram (6.2.0) from Android devices.
- Applications. Messengers. Updated data parsing from Viber (13.2.1) from Apple iOS devices and Viber (13.2.0.8) from Android devices.
- Applications. Messengers. Updated data parsing from Skype (8.61.99) from Apple iOS devices and Skype (8.61.0.96) from Android devices.
- Applications. Messengers. Updated data parsing from TextNow (20.22.0.3) from Android devices.
- Applications. Messengers. Updated data parsing from Text Me (3.22.0) from Apple iOS devices and Text Me (3.22.8) from Android devices.
- Applications. Messengers. Updated data parsing from ICQ (9.2.1) from Apple iOS devices and ICQ (9.4.2(824620)) from Android devices.
- Applications. Messengers. Updated data parsing from Android Messages (6.1.097) from Android devices.
- Applications. Messengers. Updated data parsing from Azar (1.44.0) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Google Duo (95.0) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Plus messenger (6.2.0.2) from Android devices.
- Applications. Messengers. Updated data parsing from KakaoTalk (8.9.3) from Apple iOS devices and KakaoTalk (8.9.3) from Android devices.
- Applications. Social Networks. Updated data parsing from Instagram (148.0.033.121) from Android devices and Instagram (150.0) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from VK (6.7.2) from Apple iOS devices and VK (6.5) from Android devices.
- Applications. Social Networks. Updated data parsing from Snapchat (10.85.5.77) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from Facebook (278.0) from Apple iOS devices and Facebook (277.0.0.41.126) from Android devices.
- Applications. Social Networks. Updated data parsing from Likee (3.37.0) from Apple iOS devices and Likee (3.37.2) from Android devices.
- Applications. Social Networks. Updated data parsing from LinkedIn (4.1.464) from Android devices and LinkedIn (9.1.182) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from OK (20.6.2) from Android devices.
- Applications. Social Networks. Updated data parsing from TikTok (16.6.43) from Android devices.
- Applications. Social Networks. Updated data parsing from Twitter (8.52.0-release.00) from Android devices Twitter (8.27) from Apple iOS devices.
- Applications. Web Browsers. Updated data parsing from Google Chrome (83.0.4103.106) from Android devices.
- Applications. Web Browsers. Updated data parsing from Samsung Internet Browser (11.2.2.3) from Android devices.
- Applications. Business. Updated data parsing from Google Drive (4.2020.24202) from Apple iOS devices.
- Applications. Business. Updated data parsing from Evernote (8.13.2) from Android devices.
- Applications. Business. Updated data parsing from Flipboard (4.2.47) from Android devices.

- Applications. Business. Updated data parsing from Gmail (2020.05.31.316831277.release) from Android devices and Gmail (6.0.200614) from Apple iOS devices.
- Applications. Business. Updated data parsing from Google Contacts (3.27.2.319763969) from Android devices.
- Applications. Business. Updated data parsing from Google Docs (1.2020.26204) from Apple iOS devices and Google Docs (1.20.262.05.44) from Android devices.
- Applications. Business. Updated data parsing from Google Keep (2.2020.26202) from Apple iOS devices and Google Keep (5.20.241.03.40) from Android devices.
- Applications. Business. Updated data parsing from Mail.Ru Email App (12.2.1) from Apple iOS devices and Mail.Ru Email App (12.4.1.30160) from Android devices.
- Applications. Business. Updated data parsing from Microsoft Outlook (4.2025.3) from Android devices.
- Applications. Business. Updated data parsing from Slack (20.05.20.0) from Android devices.
- Applications. Business. Updated data parsing from Speedtest (4.5.10) from Android devices.
- Applications. Business. Updated data parsing from Yandex.Mail (4.18.0) from Apple iOS devices.
- Applications. Multimedia. Updated data parsing from Amazon Photos (7.4.0) from Apple iOS devices.
- Applications. Multimedia. Updated data parsing from FaceApp (3.9.0) from Android devices.
- Applications. Multimedia. Updated data parsing from Google Photos (5.1.0.320690391) from Android devices.
- Applications. Multimedia. Updated data parsing from Imgur (4.10.1.13493) from Android devices.
- Applications. Multimedia. Updated data parsing from SoundHound (9.4.1) from Apple iOS devices.
- Applications. Multimedia. Updated data parsing from Youtube (15.22.33) from Android devices.
- Applications. Navigation. Updated data parsing from Google Maps (10.43.2) from Android devices and Google Maps (5.47) from Apple iOS devices.
- Applications. Fitness. Updated data parsing from Fitbit (3.24) from Android devices.
- General. Added support for over 1.000 new Android devices: Samsung Galaxy S20 Ultra 5G, ZTE Blade L8, Alcatel one touch 908F, DEXP BL160, LG LM G910 VELVET, Motorola moto e XT2052DL, etc. The total number of supported devices is 38.094.

## Changes in version 12.5 (June 2020):

- Oxygen Forensic® Cloud Extractor. Added the ability to extract <u>Amazon Photos</u> data via Amazon login/password or Amazon token extracted from mobile devices.
- Oxygen Forensic® Cloud Extractor. Added the ability to authorize via Microsoft Authenticator in the following Microsoft services: Skype, OneDrive, Outlook Calendar, Outlook People and Outlook Mail.
- Oxygen Forensic® Cloud Extractor. Updated the ability to extract messages and notifications from Fitbit.
- Oxygen Forensic® Cloud Extractor. Updated the ability to decrypt chats from Wickr Me.
- Oxygen Forensic® Cloud Extractor. Updated the ability to extract workout history from Samsung Health Cloud.
- Oxygen Forensic® KeyScout. Added the ability to import and parse <u>E01</u> PC images of NTFS file systems.
- Oxygen Forensic® KeyScout. Added the ability to extract Task Scheduler data from Windows OS.
- Oxygen Forensic® KeyScout. Added the ability to extract emails, their metadata and credentials from Apple Mail from macOS.
- Oxygen Forensic® KeyScout. Added the ability to extract search history and favorites from Apple Maps from macOS.
- Oxygen Forensic® KeyScout. Added the ability to extract Apple Contacts data from macOS.
- Oxygen Forensic® KeyScout. Added the ability to extract Apple Calendar data from macOS.
- Oxygen Forensic® Extractor. Added <u>selective data extraction</u> from Apple iOS jailbroken devices. Now you can select and extract the most popular applications.
- Oxygen Forensic® Extractor. Added the ability to jailbreak iPhone 6 (iOS 12.4.4 12.4.7), iPhone 7 (iOS 13.0 13.5.1) and iPhone 7 Plus (iOS 13.0 13.3) with the built-in checkm8 exploit and extract full file system and keychain.
- Oxygen Forensic® Extractor. Added the ability to extract full file system and keychain from Apple iOS devices jailbroken with the Unc0ver jailbreak.
- Oxygen Forensic® Extractor. Android logical extraction. Added the ability to extract data with OxyAgent utility via Wi-Fi network.
- Oxygen Forensic® Extractor. Added the ability to <u>make screenshots</u> of Android device data using OxyAgent utility.
- Warrant Return Import. Added the ability to import and parse the account details, tweets, chats, and other data from Twitter Warrant Returns.
- Backup Import. Added the ability to <u>search data</u> by keywords, hash sets, regular expressions and other criteria during backup import.
- Backup import. Added the ability to import and fully parse E01 images made from Android devices.
- Password brute force module. Added a new attack with popular 4-9 digit PINs and Patterns provided by Passware Inc.
- Accounts and passwords. Added keychain file parsing from UFED extractions.
- Contacts. Added the ability to merge chat groups automatically and manually.
- Apple Photos. Added thumbnails parsing from Apple iOS devices.
- Messages. Added locations parsing from iMessages from Apple iOS devices.

- Oxygen Forensic® Maps. Added the ability to make snapshots that will be saved in the Reports section.
- Data Export. Added the ability to export the Statistics section data to PDF, HTML, HLSX, XLS and XML formats.
- Data Export. Added the ability to add SVG snapshots to HTML export.
- File Viewer for SQLite databases. Added the ability to create aliases for columns.
- File Viewer for SQLite databases. Added the visualization of SQLite Views.
- File Viewer for SQLite databases. Added the DDL (Data Definition Language) tab for SQLite databases.
- Applications. Added data parsing from over 600 new app versions from Apple iOS and Android devices. The total number of supported versions exceeds 16,100.
- Applications. Business. Added data parsing from Zoom Cloud Meetings (4.6.9) from Apple iOS devices and Zoom Cloud Meetings (5.0.25692.0524) from Android devices.
- Applications. Business. Added data parsing from Microsoft Remote Desktop (8.1.79.421) from Android devices and Microsoft Remote Desktop (10.0.6) from Apple iOS devices.
- Applications. Multimedia. Added data parsing from Amazon Photos (7.2.1) from Apple iOS devices and Amazon Photos (1.34.0-66124311g) from Android devices.
- Applications. Messengers. Added data parsing from TextNow (20.18.0) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from WhatsApp (2.20.52) from Apple iOS devices and WhatsApp (2.20.163) from Android devices
- Applications. Messengers. Updated data parsing from Telegram (6.1.2) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Discord (21.6) from Android devices and Discord (22.0) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Facebook Messenger (263.1) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Skype (8.59) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Brosix Instant Messenger (4.5.1) from Android devices.
- Applications. Messengers. Updated data parsing from Azar (1.42.0) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Google Duo (89.0) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from KakaoTalk (8.8.7) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from Instagram (140.0) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from Facebook (272.0.0.50.125) from Android devices.
- Applications. Social Networks. Updated data parsing from LinkedIn (9.1.179) from Apple iOS devices and LinkedIn (4.1.453) from Android devices.
- Applications. Social Networks. Updated data parsing from SCRUFF (6.1802) from Android devices.
- Applications. Social Networks. Updated data parsing from TikTok (16.0.4) from Android devices.
- Applications. Social Networks. Updated data parsing from Twitter (8.45.0-release.00) from Android devices.
- Applications. Social Networks. Updated data parsing from VK (6.4) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from OK (20.5.21) from Android devices.
- Applications. Web Browsers. Updated data parsing from Google Chrome (81.0.4044.124) from Apple iOS devices and Google Chrome (83.0.4103.60) from Android devices.
- Applications. Web Browsers. Updated data parsing from Default Web Browser from Android devices.
- Applications. Web Browsers. Updated data parsing from Samsung Internet Browser (11.2.2.3) from Android devices.
- Applications. Web Browsers. Updated data parsing from Firefox (25.1) from Apple iOS devices.
- Applications. Business. Updated data parsing from Files By Google (1.0.312595236) from Android devices.
- Applications. Business. Updated data parsing from Gmail (2020.03.29.306383213) from Android devices.
- Applications. Business. Updated data parsing from Google Tasks (1.11.200513) from Apple iOS devices.
- Applications. Business. Updated data parsing from Speedtest (4.5.7) from Android devices and Speedtest (4.2.3) from Apple iOS devices.
- Applications. Business. Updated data parsing from Yahoo! Mail (6.8.1) from Android devices.
- Applications. Business. Updated data parsing from Yandex.Mail (4.55.0) from Android devices.
- Applications. Navigation. Updated data parsing from Yandex.Maps (9.3.3) from Android devices and Yandex.Maps (12.3.2) from Apple iOS devices.
- Applications. Multimedia. Updated data parsing from Likee (3.33.0) from Apple iOS devices.
- Applications. Multimedia. Updated data parsing from SoundHound (9.4) from Apple iOS devices and SoundHound (9.3.5.3) from Android devices.
- Applications. Fitness. Updated data parsing from Fitbit (3.21) from Android devices.
- Applications. Finance. Updated data parsing from Sberbank Online from Android devices.
- General. Added support for over 950 new Android devices:Xiaomi Mi 10 lite 5G, Xiaomi Mi Note 10 Lite, Sony Xperia 10 II, Sony Xperia L4, Samsung Galaxy M01, Samsung Galaxy S20 5G, etc The total number of supported devices is 37,002.

- Oxygen Forensic® Cloud Extractor. Added the ability to extract the account details, contacts, payment information, recent calls, private and group chats from <a href="Skype">Skype</a>. Authorization is possible via Skype credentials, phone number or Microsoft credentials or Microsoft token extracted from Apple iOS and Android devices.
- Oxygen Forensic® Cloud Extractor. Added the new method of Huawei Cloud data extraction via phone number, credentials or token. The old (legacy) method is also available.
- Oxygen Forensic® Cloud Extractor. Added 2FA support for Huawei cloud service.
- Oxygen Forensic® Cloud Extractor. Added 2FA support for authorization in Slack account via Google credentials.
- Oxygen Forensic® Cloud Extractor. Updated the ability to extract emails, contacts and other available data from Google Mail account via Google credentials or tokens extracted from Android devices.
- Oxygen Forensic® Cloud Extractor. Updated the ability to extract data from Line Google Backup.
- Oxygen Forensic® KeyScout. Added the ability to collect and decrypt Signal Messenger data on Windows, macOS and Linux computers.
- Oxygen Forensic® Extractor. Added the ability to obtain root rights and perform physical extraction of Mediatek arm64 Android devices with the security patch level until March 1, 2020.
- Warrant Return Import. Added the ability to import and parse chats, account details and other information from <u>Snapchat Warrant Returns</u>.
- General. Added <u>Statistics</u> section that shows the overall statistics about the user activity as well as the investigator's interactions with the evidence.
- Timeline. Added the Activity chart that shows the detailed user activity by the set timeframes (years, months, etc.).
- SQLite databases. Added the ability to open <u>SQLite</u> databases in the newly-designed File Viewer by right-clicking on it and choosing "Open in File Viewer" option.
- <u>Data Import</u>. Added the ability to configure import settings that include case and extraction details, general import settings, advanced analytics and deleted data recovery options.
- Data Search. Added the ability to search data in binary files.
- Social Graph. Added the ability to save a Social Graph snapshot in SVG format.
- Data Export. Added the ability to add snapshots to data reports.
- Apple Notes. Added the ability to enter the password to decrypt Apple notes.
- Applications. Added data parsing from over 600 new app versions from Apple iOS and Android devices. The total number of supported versions exceeds 15,400.
- Applications. Business. Added data parsing from Google Tasks (1.8.200124) from Apple iOS devices and Google Tasks (2020.02.298557460.release) from Android devices.
- Applications. Business. Added data parsing from Google Docs (1.20.122.03) from Android devices and Google Docs (1.2020.16203) from Apple iOS devices.
- Applications. Business. Added data parsing from Files by Google (1.0.302918309) from Android devices.
- Applications. Business. Added data parsing from Google Contacts (3.14.0.282336800) from Android devices.
- Applications. Messengers. Updated data parsing from WhatsApp (2.20.110) from Android devices.
- Applications. Messengers. Updated data parsing from WhatsApp Business (2.20.31) from Android devices.
- Applications. Messengers. Updated data parsing from Telegram (6.0.1) from Android devices and Telegram (6.0) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Telegram X (0.22.6.1314) from Android devices.
- Applications. Messengers. Updated data parsing from Kik Messenger (15.22.1) from Apple iOS devices and Kik Messenger (15.22.0.22321) from Android devices.
- Applications. Messengers. Updated data parsing from Viber (12.6) from Apple iOS devices and Viber (12.8.0.19) from Android devices.
- Applications. Messengers. Updated data parsing from Skype Lite (1.9.0) from Android devices.
- Applications. Messengers. Updated data parsing from Skype (8.58) from Apple iOS devices and Skype (8.59.0.77) from Android devices.
- Applications. Messengers. Updated data parsing from Android Messages (5.2.062) from Android devices.
- Applications. Messengers. Updated data parsing from Facebook Messenger Lite (65.0.1.18.236) from Android devices.
- Applications. Messengers. Updated data parsing from Discord (18.0) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Facebook Messenger (261.1) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from GroupMe (5.39.1) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from ICQ (90(824420)) from Android devices.
- Applications. Messengers. Updated data parsing from Google Duo (85.0) from Apple iOS devices and Google Duo (82.0.306313044.DR82\_RC07) from Android devices.
- Applications. Messengers. Updated data parsing from Zangi Private Messenger (5.0.0) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from VK (5.21.3) from Apple iOS devices and VK (6.1.1) from Android devices.

- Applications. Social Networks. Updated data parsing from Twitter (8.17.1) from Apple iOS devices and Twitter (8.30.0-release.00) from Android devices.
- Applications. Social Networks. Updated data parsing from TikTok (15.4.3) from Android devices.
- Applications. Social Networks. Updated data parsing from Facebook (267.0) from Apple iOS devices and Facebook (267.0.0.42.120) from Android devices.
- Applications. Social Networks. Updated data parsing from Instagram (134.0) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from LinkedIn (9.1.176) from Apple iOS devices and LinkedIn (4.1.440) from Android devices.
- Applications. Social Networks. Updated data parsing from OK (8.41) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from VSCO (161.0) from Apple iOS devices and VSCO (160) from Android devices.
- Applications. Web Browsers. Updated data parsing from Firefox (24.1) from Apple iOS devices.
- Applications. Web Browsers. Updated data parsing from Google Chrome (81.0.4044.111) from Android devices.
- Applications. Web Browsers. Updated data parsing from Opera Mini Browser (47.2.2254.147957) from Android devices.
- Applications. Business. Updated data parsing from Evernote (8.24.4) from Apple iOS devices.
- Applications. Business. Updated data parsing from Flipboard (4.2.41) from Android devices.
- Applications. Business. Updated data parsing from Gmail (6.0.200324) from Apple iOS devices and Gmail (2020.03.01.300951155;) from Android devices.
- Applications. Business. Updated data parsing from Google Keep (5.20.141.05.40) from Android devices.
- Applications. Business. Updated data parsing from SHAREit (3.2.68) from Apple iOS devices and SHAREit (5.4.8 ww) from Android devices.
- Applications. Business. Updated data parsing from Slack (20.03.30.0) from Android devices.
- Applications. Business. Updated data parsing from Speedtest (4.2.2) from Apple iOS devices.
- Applications. Business. Updated data parsing from Yandex. Disk (3.08) from Apple iOS devices.
- Applications. Business. Updated data parsing from Yahoo! Mail (6.6.2) from Android devices.
- Applications. Multimedia. Updated data parsing from FaceApp (4.0.4) from Apple iOS devices.
- Applications. Multimedia. Updated data parsing from YouTube (14.35) from Apple iOS devices.
- Applications. Multimedia. Updated data parsing from Google Photos (4.49) from Apple iOS devices.
- Applications. Multimedia. Updated data parsing from Likee (3.27.3) from Android devices and Likee (3.29.2) from Apple iOS devices.
- Applications. Multimedia. Updated data parsing from SoundHound (9.3.5) from Android devices and SoundHound (9.3.2) from Apple iOS devices.
- Applications. Fitness. Updated data parsing from Fitbit (3.19) from Apple iOS devices.
- Applications. Fitness. Updated data parsing from Strava (146.9) from Android devices.
- General. Added support for over 500 new Android devices: Samsung Galaxy A31, Samsung Galaxy A41, Samsung Galaxy A51, Samsung Galaxy A71, Samsung Galaxy A71 5G, Samsung Galaxy S10 Lite, iPhone SE (2nd generation), etc. The total number of supported devices is 36,033.

## Changes in version 12.3.0.1 (April 2020):

• Oxygen Forensic® Extractor. Added optional steps for Huawei Kirin devices after unsuccessful data extraction.

## Changes in version 12.3 (April 2020):

- Oxygen Forensic® Extractor. Added the ability to bypass screen lock, perform physical extraction and decrypt physical dumps of <u>Huawei devices</u> with Android OS 9-10 and based on Kirin 980, 970, 710 and 710F chipsets.
- Oxygen Forensic® Cloud Extractor. Added the ability to extract the account information, contacts and chats from <u>Slack</u> via username/password or tokens extracted from mobile devices or PC.
- Oxygen Forensic® Cloud Extractor. Added the ability to extract new artifacts from Instagram: stories, saved posts, collections, and available data.
- Oxygen Forensic® Cloud Extractor. Added the ability to extract Airbnb data via phone number and Google credentials.
- Oxygen Forensic® Cloud Extractor. Updated the algorithm of WhatsApp backup decryption via phone number.
- Oxygen Forensic® Cloud Extractor. Updated the ability to access the WhatsApp Cloud service via phone number.
- Oxygen Forensic® Cloud Extractor. Updated the ability to extract WhatsApp data via QR code.
- Oxygen Forensic® Cloud Extractor. Updated authorization algorithm for iCloud services. Now OxyAgent is used for authorization.
- Oxygen Forensic® KeyScout. Added the ability to extract Apple Messages from macOS.
- Oxygen Forensic® KeyScout. Added the ability to extract Apple Notes from macOS.
- Oxygen Forensic® KeyScout. Added the ability to extract Apple Reminders from macOS.
- Oxygen Forensic® KeyScout. Added the ability to extract Apple Photos from macOS.
- Oxygen Forensic® KeyScout. Added extraction of IMO token from IMO Messenger from Windows.
- Oxygen Forensic® KeyScout. Added the ability to decrypt passwords from Google Chrome v.80 and newer.

- Oxygen Forensic® KeyScout. Added the ability to decrypt passwords from Mozilla Firefox v.75 and newer.
- Oxygen Forensic® KeyScout. Added the ability to find the Telegram token in Telegram Desktop app (1.9.21 or newer) on Windows, macOS and Linux computers.
- Backup Import. Added the ability to import XRY logical backups made from Android OS devices.
- Apple Photos. Added data parsing from Apple Photos pre-installed app..
- Accounts and passwords. Added parsing of the keychain file taken from JB Elcomsoft TAR files.
- Export. Added data export to XLS.
- General. Added additional information about devices running KaiOS.
- General. Improved support for F2FS.
- Applications. Added data parsing from 500+ new app versions from Apple iOS and Android devices. The total number of supported versions exceeds 14,800+!
- Applications. Messengers. Added data decryption and parsing from Wickr Me (5.49.1) from Apple iOS devices.
- Applications. Messengers. Added data decryption and parsing from Signal (3.6.1) from Apple iOS devices.
- Applications. Messengers. Added data decryption and parsing from ChatSecure (5.0.1) from Apple iOS devices.
- Applications. Messengers. Added data parsing from Textra SMS (4.23) from Android devices.
- Applications. Messengers. Added decryption of secure chats and updated data parsing from Facebook Messenger (254.1) from Apple iOS devices and Facebook Messenger (251.0.0.12.117) from Android devices.
- Applications. Messengers. Updated data parsing from WhatsApp (2.20.91) from Android devices and WhatsApp (2.20.31) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from WickrMe (5.47.6) from Android devices.
- Applications. Messengers. Updated data parsing from Skype (8.58.0.93) from Android devices and Skype (8.58) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Telegram (5.15) from Apple iOS devices and Telegram (5.15) from Android devices.
- Applications. Messengers. Updated data parsing from Viber (12.4.0.29) from Android devices and Viber (12.4.0) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from TamTam (2.10.0) from Android devices.
- Applications. Messengers. Updated data parsing from Google Duo (78.0) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Azar (3.54.2) from Android devices.
- Applications. Messengers. Updated data parsing from ICQ (8.4(824300)) from Android devices.
- Applications. Messengers. Updated data parsing from KakaoTalk (8.7.8) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Plus messenger (5.15.0.2) from Android devices.
- Applications. Messengers. Updated data parsing from GroupMe (5.39.0) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Hangouts (27.1.0) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Kik Messenger (15.21.0.22201) from Android devices.
- Applications. Messengers. Updated data parsing from Line (10.4.2) from Android devices.
- Applications. Social Networks. Updated data parsing from Instagram (133.0) from Apple iOS devices and Instagram (133.0.0.32.120) from Android devices.
- Applications. Social Networks. Updated data parsing from Facebook (260.0.0.42.118) from Android devices.
- Applications. Social Networks. Updated data parsing from Workplace by Facebook (258.0.0.30.119) from Android devices.
- Applications. Social Networks. Updated data parsing from LinkedIn (4.1.428) from Android devices and LinkedIn (9.1.169) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from OK (20.2.28) from Android devices and OK (8.34.1) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from VK (5.56.1) from Android devices and VK (5.35.2) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from TikTok (14.7.5) from Android devices.
- Applications. Social Networks. Updated data parsing from Twitter (8.11) from Apple iOS devices.
- Applications. Web Browsers. Updated data parsing from Firefox (68.5.0.0) from Android devices.
- Applications. Web Browsers. Updated data parsing from Google Chrome (80.0.3987.132) from Android devices.
- Applications. Business. Updated data parsing from Slack (20.03.10.0) from Android devices.
- Applications. Business. Updated data parsing from Gmail (2020.03.01.300951155) from Android devices and Gmail (6.0.200209) для Apple iOS устройств.
- Applications. Business. Updated data parsing from Microsoft Outlook (4.1.23) from Android devices and Microsoft Outlook (4.24.0) для Apple iOS устройств.
- Applications. Business. Updated data parsing from Google Keep (5.20.061.04.40) from Android devices.
- Applications. Business. Updated data parsing from SHAREit (5.3.39\_ww) from Android devices.
- Applications. Business. Updated data parsing from Speedtest (4.2.1) from Apple iOS devices.
- Applications. Multimedia. Updated data parsing from Google Photos (4.42) для Apple iOS устройств.

- Applications. Multimedia. Updated data parsing from FaceApp (4.0.0) from Apple iOS devices and FaceApp (3.5.10) from Android devices.
- Applications. Multimedia. Updated data parsing from VSCO (152.0) and Android devices and VSCO (156.0) from Apple iOS devices.
- Applications. Multimedia. Updated data parsing from Youtube (15.09.36) from Android devices.
- Applications. Travel. Updated data parsing from Uber (3.390.10003) from Apple iOS devices.
- Applications. Fitness. Updated data parsing from Fitbit (3.17) from Apple iOS devices.
- Applications. Navigation. Updated data parsing Google Maps (5.39.1) from Apple iOS devices.
- General. Added support for 1,000+ new Android devices: Motorola Moto E6, Motorola moto G8, Xiaomi MI 2A, Xiaomi Mi 10, Xiaomi Mi 10 Pro, Samsung Galaxy A01, Samsung Galaxy S20, etc. The total number of supported devices exceeds 35,500!

### Changes in version 12.2 (February 2020):

- Oxygen Forensic® Extractor. Added the ability to obtain <u>root</u> rights and do physical extraction of Android devices with the Android OS 7 with the security patch level until June 2018 and Android OS 8 and higher with the security patch level until October 2019.
- Oxygen Forensic® Extractor. Added the ability to bypass screen lock, perform physical extraction and decrypt physical dumps of Android devices based on the following chipsets: <a href="Spreadtrum">Spreadtrum</a> SC9850, Spreadtrum SC9863, Spreadtrum SC7731E and Spreadtrum SC9832E. The supported device models include teXet TM-5073, Fly Life Ace, Doogee N10, Alcatel 1C 2019 (5003D), DEXP BS650, Meizu C9, Micromax Spark Go, etc.
- Oxygen Forensic® Extractor. Added the ability to extract full file system and keychain from jailbroken Apple iOS devices including devices jailbroken with the <a href="mailto:checkra1n">checkra1n</a>.
- Warrant Returns import. Added the ability to import and parse the account information, account actions with IP addresses and chats with attachments from Facebook Warrant Returns.
- Warrant Returns import. Added the ability to import and parse the account information, account actions with IP addresses, contacts, chats with attachments, and stories from Instagram Warrant Returns.
- Oxygen Forensic® Cloud Extractor. Added the ability to extract complete booking history, contacts, credit card details and other data from <u>Airbnb</u> via login/password or token extracted from Apple iOS and Android devices.
- Oxygen Forensic® Cloud Extractor. Added the ability to extract the account information, contacts, chats with attachments, and other available data from IMO via phone number or token extracted from mobile devices
- Oxygen Forensic® Cloud Extractor. Added the ability to extract the account information, contacts and chats from JioChat via phone number or token extracted from Android devices.
- Oxygen Forensic® Cloud Extractor. Updated the ability to extract contacts from Outlook People via Microsoft login/password or token extracted from Apple iOS and Android devices.
- Oxygen Forensic® Cloud Extractor. Updated the ability to extract calendar data from Outlook Calendar via Microsoft login/password or token extracted from Apple iOS and Android devices.
- Oxygen Forensic® Cloud Extractor. Added support for 2FA and verification for the following Microsoft services: OneDrive, Outlook Calendar, Outlook People and Outlook Mail.
- Oxygen Forensic® Cloud Extractor. Added Proxy support for the following services: all Apple (except Calendars and Contacts), Airbnb, IMO, Outlook People and Outlook Calendar. Added support for HTTP-Proxy in JioChat service.
- Oxygen Forensic® Cloud Extractor. Accelerated data extraction from OneDrive.
- Oxygen Forensic® Cloud Extractor. Added the ability to change credentials for several cloud accounts simultaneously.
- Oxygen Forensic® KeyScout. Added the ability to extract Jump Lists from Windows OS. They contain the history of the user's recent interactions with the computer.
- Oxygen Forensic® KeyScout. Added the ability to extract Shellbags from Windows OS. Shellbags allow the investigator to track the folder browsing history of a user and get the details of a folder that might no longer exist.
- Oxygen Forensic® KeyScout. Added the ability to extract the history of USB connected devices from the USBSTOR registry from Windows OS.
- Oxygen Forensic® KeyScout. Added the ability to extract the history of file saving (including files received from Internet and via AirDrop) from the Quarantine Events log from macOS.
- Oxygen Forensic® KeyScout. Added the ability to extract the file history from the FSEvents log from macOS.
- Backup Import. Added the ability to import .DAR archives of Apple iOS, Android and KaiOS file systems as well as memory cards/MTP and other extractions.
- Timeline. Added Activity Matrix that shows the intervals of user activity.
- Reports. Added Reports section that stores the history of all created reports.
- Oxygen Forensic® Viewer. Added the ability to search data in the Search section.
- Accounts and passwords. Added parsing of additional information (Certificates and Keys) from the keychain file taken from Apple GrayKey extractions and Apple iOS jailbroken devices.
- Calls. Added calls parsing from Android ADB backups made from Android devices with OS 8.0-10.0.
- Messages. Added parsing of RCS messages from Android devices.
- Wireless Connections. Added the ability to receive geo coordinates from MAC addresses of Wi-Fi points.

- Wireless Connections. Added SSID, BSSID and WiFi password parsing from networkHistory.txt and WifiConfigStore.xml files from Android devices.
- Contacts. Added simple and advanced contact merge settings.
- Contacts. Added the ability to open the contact merge window from the Contacts section.
- Files. Added the ability to save file structure to .TAR archive.
- General. Added hash calculation for OFBX backups.
- General. Added the ability to update Known files lists in Hash Sets Manager.
- Export. Added the ability to export Applications section data to data reports.
- Applications. Added data parsing from 1,100+ new app versions from Apple iOS and Android devices. The total amount of supported versions exceeds 14,300+!
- Applications. Travel. Added data parsing from Airbnb (20.06) from Apple iOS devices and Airbnb (20.06) from Android devices.
- Applications. Multimedia. Added data parsing from Imgur (9.31) from Apple iOS devices and Imgur (4.5.10.12409) from Android devices.
- Applications. Multimedia. Added data parsing from SoundHound (9.3) from Apple iOS devices and SoundHound (9.2.2)) from Android devices.
- Applications. Messengers. Added data parsing from JioChat (3.3.1) from Apple iOS devices and JioChat (3.2.7.3.1121) from Android devices.
- Applications. Messengers. Updated data parsing from WhatsApp (2.20.36) from Android devices.
- Applications. Messengers. Updated data parsing from WickrMe (5.45.4) from Android devices.
- Applications. Messengers. Updated data parsing from Viber (12.3.7.0) from Android devices and Viber (12.3.5) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Skype (8.56.0.100) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Telegram (5.14) from Android devices and Telegram (5.14) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from imo free video calls and chat (2020.2.11) from Android devices and imo free video calls and chat (2020.2.1) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from imo beta free calls and text (2020.1.12) from Android devices.
- Applications. Messengers. Updated data parsing from Azar (3.52.0) from Android devices.
- Applications. Messengers. Updated data parsing from Discord (3.1.9) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from ICQ (8.2.2(824180)) from Android devices.
- Applications. Messengers. Updated data parsing from Kik Messenger (15.20.0.22120) from Android devices.
- Applications. Messengers. Updated data parsing from Line (10.1.1) from Android devices and Line (10.0.2) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Plus messenger (5.14.0.3) from Android devices.
- Applications. Social Networks. Updated data parsing from Facebook (251.0) from Apple iOS devices and Facebook (254.0.0.37.125) from Android devices.
- Applications. Social Networks. Updated data parsing from Instagram (126.0) from Apple iOS devices and Instagram (127.0.0.30.121) from Android devices.
- Applications. Social Networks. Updated data parsing from LinkedIn (9.1.164) from Apple iOS devices and LinkedIn (4.1.409) from Android devices.
- Applications. Social Networks. Updated data parsing from OK (8.31.1) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from TikTok (14.7.5) from Android devices.
- Applications. Social Networks. Updated data parsing from Twitter (8.30.0-release.00) from Android devices.
- Applications. Social Networks. Updated data parsing from VK (5.53) from Android devices and VK (5.32.1) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from VSCO (150.0) from Android devices and VSCO (141.0) from Apple iOS devices.
- Applications. Web Browsers. Updated data parsing from Firefox (22.0) from Apple iOS devices.
- Applications. Web Browsers. Updated data parsing from Google Chrome (80.0.3987.99) from Android devices
- Applications. Web Browsers. Updated data parsing from UC Browser (12.14.0.1221) from Android devices
- Applications. Business. Updated data parsing from Evernote (8.24.3) from Apple iOS devices.
- Applications. Business. Updated data parsing from Google Keep (5.19.491.03.40) from Android devices and Google Keep (2.2019.49202) from Apple iOS devices.
- Applications. Business. Updated data parsing from Google Translate (6.4.0) from Android devices.
- Applications. Business. Updated data parsing from OneDrive (11.12) from Apple iOS devices.
- Applications. Business. Updated data parsing from SHAREit (3.2.18) from Apple iOS devices and SHAREit (5.2.98 ww) from Android devices.
- Applications. Multimedia. Updated data parsing from YouTube (14.51.51) from Android devices.
- Applications. Multimedia. Updated data parsing from FaceApp (3.6.8) from Apple iOS devices and FaceApp (3.5.2.2) from Android devices.
- Applications. Multimedia. Updated data parsing from Google Photos (4.37.0.291637182) from Android devices.

- Applications. Fitness. Updated data parsing from Fitbit (3.13) from Apple iOS devices.
- General. Added support for 1,000+ new Android devices. The total number of supported devices exceeds 34,500!

### Changes in version 12.1.1 (December 2019):

- Oxygen Forensic® Cloud Extractor. Improved data extraction from Telegram via token found by Oxygen Forensic KeyScout.
- Oxygen Forensic® KeyScout. Fixed known issues with support for Windows 7 OS.

#### Changes in version 12.1 (December 2019):

- General. Added the ability to detect visual threats including pornography, extremism, drugs, guns, graphic violence, etc with the built-in <u>image categorization engine</u>. Detected images are tagged and shown in Key Evidence and Files sections. The functionality is available at no additional charge.
- Oxygen Forensic® KeyScout. Added the ability to extract keychain data and general system information from macOS PCs.
- Oxygen Forensic® KeyScout. Added the ability to extract user data and token from <u>Safari</u> from macOS PCs.
- Oxygen Forensic® KeyScout. Added the ability to extract user data and credentials from Google Chrome from macOS PCs.
- Oxygen Forensic® KeyScout. Added the ability to extract user data and credentials from Mozilla Firefox from macOS PCs.
- Oxygen Forensic® KeyScout. Added the ability to extract user data and credentials from Mozilla Thunderbird from macOS PCs.
- Oxygen Forensic® KeyScout. Added the ability to extract user data and credentials from Opera from macOS PCs.
- Oxygen Forensic® KeyScout. Added the ability to extract the WhatsApp QR token and app logs from macOS PCs.
- Oxygen Forensic® KeyScout. Added the ability to extract the iCloud token on macOS PCs.
- Oxygen Forensic® KeyScout. Added the ability to extract the Telegram Desktop token from macOS PCs.
- Oxygen Forensic® KeyScout. Added the ability to extract the TamTam token from macOS PCs.
- Oxygen Forensic® KeyScout. Added the ability to extract general system information about GNU/Linux PCs.
- Oxygen Forensic® KeyScout. Added the ability to extract user data and token from Chrome from GNU/Linux PCs
- Oxygen Forensic® KeyScout. Added the ability to extract user data and credentials from Mozilla Firefox from GNU/Linux PCs.
- Oxygen Forensic® KeyScout. Added the ability to extract user data and credentials from Mozilla Thunderbird from GNU/Linux PCs.
- Oxygen Forensic® KeyScout. Added the ability to extract user data and token from Opera from GNU/Linux PCs.
- Oxygen Forensic® KeyScout. Added the ability to extract the TamTam token from GNU/Linux PCs.
- Oxygen Forensic® KeyScout. Added the ability to find tokens and passwords for Microsoft services.
- Oxygen Forensic® Cloud Extractor. Added the ability to extract chats, calls, contacts and other information from <a href="mailto:TamTam">TamTam</a> messenger developed by Russian Mail.Ru group.
- Oxygen Forensic® Cloud Extractor. Added the ability to extract emails from Microsoft Outlook via username/password or token found in mobile devices or on PC.
- Oxygen Forensic® Cloud Extractor. Added the ability to extract texts, videos, images, URL links and other data from Line Keep via username/password, Android token or QR code.
- Oxygen Forensic® Cloud Extractor. Added extraction of additional data from Line: groups, notes, albums, timeline.
- Oxygen Forensic® Cloud Extractor. Added support for 2FA via SMS code for iCloud services.
- Oxygen Forensic® Extractor. Added the ability to decrypt physical dumps with a known password for the devices based on the following <a href="Qualcomm chipsets">Qualcomm chipsets</a> MSM8917, MSM8937, MSM8940, MSM8953, including the devices with Secure startup enabled.
- Oxygen Forensic® Extractor. Added extraction of key value pairs from Android devices if Android backup extraction method is used.
- General. Added the ability to decrypt Android physical images using hardware-backed keys and user password. Supported chipsets are MTK 6737 and Qualcomm MSM8916, MSM8939, MSM8909, MSM8952, MSM8917, MSM8937, MSM8940, MSM8953.
- General. Integrated Passware Kit Mobile that allows finding passwords to encrypted iTunes, Android ADB backups, Android Huawei and Android LG backups as well as Android physical dumps including Samsung Android physical images.
- General. Added the ability to import and parse SIM card (UICC) data.
- Social Graph. Added the ability to define the shortest paths between selected contacts (up to 5 intermediaries by default). The number of intermediaries can be changed in Settings.ini file in Oxygen Forensic® Detective folder.
- Social Graph. Added the ability to <u>view communications</u> between contacts manually selected on the Graph.

- Social Graph. Added visualization of self-communications.
- Device Statistics. Added visualization of hash set search results and other minor interface improvements.
- Device Statistics. Added data export from the section.
- Faces. Added the Familiar tab that shows the faces of other people on the group photo.
- Search. Added the ability to search inside SQLite databases if File Content option is selected in Search section.
- Export. Added the ability to select fields for export.
- Export. Added the ability to select file type for export in the Files section.
- Export. Added the ability to export chats in chat view from the Timeline section.
- Applications. Added data parsing from 1,000+ new app versions from Apple iOS and Android devices. The total amount of supported versions exceeds 13,000+!
- Applications. Social Networks. Added data parsing from SCRUFF (6.0111) from Apple iOS devices and SCRUFF (6.0019) from Android devices.
- Applications. Business. Added data parsing from Speedtest (4.1.10) from Apple iOS devices and Speedtest (4.4.26) from Android devices.
- Applications. Web Browsers. Added data parsing from UC Browser (11.3.5.1203) from Apple iOS devices and Discord (3.1.5) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from WhatsApp Messenger (2.19.345) from Android devices and WhatsApp Messenger (2.19.120) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from WhatsApp Business (2.19.124) from Android devices.
- Applications. Messengers. Updated data parsing from Telegram X (0.22.0.1205-arm64-v8a) from Android devices.
- Applications. Messengers. Updated data parsing from Telegram (5.12.0) from Android devices and Telegram (5.12.1) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Threema (4.4.2) from Apple iOS devices and Threema (4.2) from Android devices.
- Applications. Messengers. Updated data parsing from Viber (11.9.1.1) from Android devices and Viber (11.9) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Discord (9.9.3) from Android devices.
- Applications. Messengers. Updated data parsing from WeChat (7.0.8) from Apple iOS devices and WeChat (7.0.7) from Android devices.
- Applications. Messengers. Updated data parsing from CoverMe (3.1.3) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Facebook Messenger (241.0.0.17.116) from Android devices.
- Applications. Messengers. Updated data parsing from Kik Messenger (5.18.2.21835) from Android devices.
- Applications. Messengers. Updated data parsing from Line (9.19.3) from Android devices and Line (9.18.1) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Skype (8.54.0.91) from Android devices and Skype (8.54) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from TamTam (2.9.0) from Android devices and TamTam (2.6.8) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from WickrMe (5.40.2) from Android devices.
- Applications. Messengers. Updated data parsing from Xabber (2.6.4) from Android devices.
- Applications. Messengers. Updated data parsing from Zangi Private Messenger (4.6.5) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from VIPole Private Messenger (2.6.4) from Apple iOS devices and VIPole Private Messenger (2.0.95) from Android devices.
- Applications. Social Networks. Updated data parsing from Romeo (3.7.2) from Android devices.
- Applications. Social Networks. Updated data parsing from Facebook (247.0) from Apple iOS devices and Facebook (247.0.0.42.116) from Android devices.
- Applications. Social Networks. Updated data parsing from Instagram (121.0.0.29.119) from Android devices and Instagram (121.0) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from Likee (3.9.0) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from LinkedIn (4.1.383) from Android devices and LinkedIn (9.1.157) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from VK (5.28) from Apple iOS devices and VK (5.49) from Android devices.
- Applications. Social Networks. Updated data parsing from VSCO (139.0) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from OK (8.27.1) from Apple iOS devices.
- Applications. Business. Updated data parsing from Slack (19.11.20) from Apple iOS devices and Slack (19.11.20.0) from Android devices.
- Applications. Business. Updated data parsing from SHAREiT (5.0.78\_ww) from Android devices and SHAREit (3.1.68) from Apple iOS devices.
- Applications. Business. Updated data parsing from Microsoft Outlook (4.13.0) from Apple iOS devices.

- Applications. Business. Updated data parsing from Evernote (8.12.2) from Android devices and Evernote (8.24.2) from Apple iOS devices.
- Applications. Business. Updated data parsing from Google Keep (2.2019.46203) from Apple iOS devices.
- Applications. Business. Updated data parsing from Google translate (6.3.0) from Apple iOS devices.
- Applications. Business. Updated data parsing from OneDrive (11.9.3) from Apple iOS devices.
- Applications. Business. Updated data parsing from Yahoo! Mail (6.1.4) from Android devices.
- Applications. Business. Updated data parsing from Yandex Disk (2.86) from Apple iOS devices.
- Applications. Business. Updated data parsing from Yandex.Mail (4.1.0) from Apple iOS devices.
- Applications. Web Browsers. Updated data parsing from UC Browser (12.13.2.1208) from Android devices.
- Applications. Web Browsers. Updated data parsing from Google Chrome (78.0.3904.84) from Apple iOS devices
- Applications. Web Browsers. Updated data parsing from Firefox (20.2) from Apple iOS devices.
- Applications. Navigation. Updated data parsing from Google Maps (10.27.2) from Android devices and Google Maps (5.29) from Apple iOS devices.
- Applications. Navigation. Updated data parsing from Waze (4.55.3.0) from Android devices and Waze (4.55.2) from Apple iOS devices.
- Applications. Multimedia. Updated data parsing from FaceApp (3.5.5) from Apple iOS devices and FaceApp (3.5.1) from Android devices.
- Applications. Multimedia. Updated data parsing from Google Photos (4.32.1.282438324) from Android devices.
- Applications. Multimedia. Updated data parsing from YouTube (14.46.52) from Android devices
- Applications. Fitness. Updated data parsing from Endomondo (19.3.5) from Android devices.
- Applications. Fitness. Updated data parsing from Fitbit (3.11) from Apple iOS devices.
- Applications. Fitness. Updated data parsing from Samsung Health (6.7.1.003) from Android devices.
- General. Added support for 1,500+ new Android devices: Asus ROG Phone II, Google\_Pixel\_4, Google\_Pixel\_4\_XL, Huawei P30 lite, Sony Xperia 8, Xiaomi MI CC9 Pro, Xiaomi Redmi 8, Xiaomi Mi Note 10, etc. The total number of supported devices exceeds 33,100!

## Changes in version 12.0 (October 2019):

- Oxygen Forensic® Cloud Extractor. Added the ability to extract chats, contacts and account information from Viber Messenger via QR token found on PC by KeyScout or by <a href="mailto:scanning QR code">scanning QR code</a> directly in the Cloud Extractor.
- Oxygen Forensic® Cloud Extractor. Added the ability to extract complete account information, connections, messages, posts and other available data from <u>LinkedIn</u> via login/password or token found both on PC or mobile devices.
- Oxygen Forensic® Cloud Extractor. Added the ability to extract account information, devices, contacts, messages, files and other valuable data from <u>JioCloud</u> via Jio, Google or Facebook login/password or token
- Oxygen Forensic® Cloud Extractor. Updated algorithm of WhatsApp backup extraction from Google Drive.
- Oxygen Forensic® Cloud Extractor. Updated workout history extraction from Samsung Health.
- Oxygen Forensic® KeyScout. Added the ability to extract and decrypt contacts, chats and media files from Wickr Me from Windows-based PCs.
- Oxygen Forensic® KeyScout. Added the ability to extract the token, contacts, chats and media files from Viber for Desktop from Windows-based PCs.
- Oxygen Forensic® KeyScout. Added the ability to extract contacts, chats and media files from Skype for Desktop from Windows-based PCs.
- Oxygen Forensic® KeyScout. Added the ability to extract contacts, chats and media files from Unigram from Windows-based PCs.
- Oxygen Forensic® KeyScout. Added the ability to extract emails, contacts, credentials and other valuable data from Microsoft Outlook from Windows-based PCs.
- Oxygen Forensic® KeyScout. Added the ability to extract emails, contacts, credentials and other valuable data from Microsoft Mail from Windows-based PCs.
- Oxygen Forensic® KeyScout. Added the ability to extract extract emails, contacts, credentials and other valuable data from Thunderbird from Windows-based PCs.
- Oxygen Forensic® KeyScout. Added the ability to extract the account information, token and files from JioCloud from Windows-based PCs.
- Oxygen Forensic® KeyScout. Added the ability to extract passwords and tokens from Windows Vault.
- Oxygen Forensic® KeyScout. Added the ability to find passwords for Jio account on Windows-based PCs.
- Oxygen Forensic® KeyScout. Added the ability to find passwords for LinkedIn on Windows-based PCs.
- Oxygen Forensic® Extractor. Added support for Apple iPhone 11, Apple iPhone 11 Pro and Apple iPhone 11 Pro Max.
- Oxygen Forensic® Extractor. Added support for <u>Apple iOS 13</u> and Android OS 10.
- Oxygen Forensic® Extractor. Added the ability to perform physical extraction of Jio Phone.
- Backup import. Added the ability to import XRY Apple iOS (logical) and Android (physical) extractions.

- Backup import. Added the ability to import UFED Apple iOS and Android extractions.
- Drones. Added extraction of additional information from DJI RAW flight log files: drone battery level, temperature, voltage, current, etc. This <u>drone flight information</u> can be visualized on Oxygen Forensic® Maps.
- Device Information. Added <u>device statistics</u> that shows the detailed statistics about extraction: Top 10 applications, Top 10 groups, Top 10 contacts, Last contacted, Key Evidence, tags and notes.
- General. Added support for KaiOS. Extracted evidence set includes contacts, messages, calls, web connections history and WhatsApp Messenger data.
- General. Added the portable Viewer that is compatible with Oxygen Forensic® Detective 12.0 backup files. It can be downloaded for free from the customer area.
- Oxygen Forensic® SQLite Viewer. Added the ability to hide columns from the table.
- Oxygen Forensic® SQLite Viewer. Added support for tables without rowid.
- Oxygen Forensic® SQLite Viewer. Added scroll lock/unlock for columns.
- Contacts. Added detailed information about groups.
- Export. Added the ability to exclude private entries from report.
- Export. Added the ability to export coordinates to KML and GPX formats.
- Applications. Added data parsing from 600+ new app versions from Apple iOS and Android devices. The total amount of supported versions exceeds 12,000+!
- Applications.Multimedia. Added data parsing from TikTok (12.7.3) from Android devices and TikTok (13.0.0) from Apple iOS devices.
- Applications.Messengers. Added data parsing from Discord (3.1.1) from Apple iOS devices and Discord (9.0.9) from Android devices.
- Applications.Multimedia. Added data parsing from Likee (3.4.3) from Android devices and Likee (3.4.3) from Apple iOS devices.
- Applications.Business. Added data parsing from JioCloud (3.12) from Apple iOS devices and JioCloud (17.12.9) from Android devices.
- Applications. Messengers. Updated data parsing from WhatsApp Messenger (2.19.91) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from WhatsApp Business (2.19.90) from Android devices and WhatsApp Business (2.19.91) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Plus Messenger (5.9.0.1) from Android devices.
- Applications. Messengers. Updated data parsing from Threema (4.11) from Android devices.
- Applications. Messengers. Updated data parsing from ICQ (4.4.076) from Android devices.
- Applications. Messengers. Updated data parsing from Viber (11.3) from Apple iOS devices and Viber (11.3.1.1) from Android devices.
- Applications. Messengers. Updated data parsing from Telegram (5.11.0) from Android devices.
- Applications. Messengers. Updated data parsing from TamTam (2.6.4) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Threema (4.3.2) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from imo video calls and chat (2019.8.4) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Facebook Messenger Lite (64.0.1.16.235) from Android devices.
- Applications. Messengers. Updated data parsing from Line (9.14.1) from Android devices and Line (9.13) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Zangi Private Messenger (4.6.1) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from Instagram (110.0.0.16.119) from Android devices.
- Applications. Social Networks. Updated data parsing from LinkedIn (9.146) from Apple iOS devices and LinkedIn (4.1.347) from Android devices.
- Applications. Social Networks. Updated data parsing from OK (8.16) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from Romeo (3.6.5) from Android devices.
- Applications. Social Networks. Updated data parsing from Twitter (8.12.0-release.00) from Android devices.
- Applications. Social Networks. Updated data parsing from VSCO (129.0) from Apple iOS devices and VSCO (125) from Android devices.
- Applications. Social Networks. Updated data parsing from YouTube (14.35.54) from Android devices.
- Applications. Web Browsers. Updated data parsing from Firefox (18.2) from Apple iOS devices.
- Applications. Web Browsers. Updated data parsing from Opera Mini Browser (44.1.2254.142553) from Android devices.
- Applications. Web Browsers. Updated data parsing from Google Chrome (77.0.3865.73) from Android devices.
- Applications. Fitness. Updated data parsing from Fitbit (3.5) from Apple iOS devices.
- Applications. Multimedia. Updated data parsing from Google Photos (4.24.0.268085645) from Android devices.
- Applications. Multimedia. Updated data parsing from FaceApp (3.4.12) from Apple iOS devices and FaceApp (3.4.14) from Android devices.

- Applications. Navigation. Updated data parsing from Waze (4.54.1.1) from Android devices and Waze (4.54.1) from Apple iOS devices.
- Applications. Productivity. Updated data parsing from Yahoo! Mail (5.43.4) from Android devices.
- Applications. Productivity. Updated data parsing from Yandex Disk (2.81) from Apple iOS devices.
- Applications. Productivity. Updated data parsing from Yandex.Mail (3.89.0) from Apple iOS devices.
- Applications. Business. Updated data parsing from Google Keep (5.19.331.03.40) from Android devices and Google Keep (2.2019.34) from Apple iOS devices.
- Applications. Business. Updated data parsing from Google Translate (6.1.1) from Android devices.
- Applications. Business. Updated data parsing from Microsoft Outlook (3.0.107) from Android devices.
- Applications.Business. Updated data parsing from Evernote (8.23) from Apple iOS devices and Evernote (8.12) from Android devices.
- Applications. Business. Updated data parsing from OneDrive (10.82.19) from Apple iOS devices.
- Applications. Business. Updated data parsing from SHAREit (3.1.38) from Apple iOS devices and SHAREit (5.0.59\_ww) from Android devices.
- Applications. Business. Updated data parsing from Flipboard (4.2.22) from Android devices.
- General. Added support for 1,500+ new Android devices: Xiaomi Mi 2A, Xiaomi Mi 9 Lite, Samsung Galaxy Fold, Samsung Galaxy Fold 5G, Samsung Galaxy Note 10, Samsung Galaxy Note 10 5G, etc. The total number of supported devices exceeds 31,500!

### Changes in version 11.5.2 (August 2019):

• Oxygen Forensic® Cloud Extractor. Updated authorization algorithm via phone number in WhatsApp Cloud. This update allows users to extract data from WhatsApp Cloud and also to decrypt WhatsApp backups.

## Changes in version 11.5.1 (August 2019):

- Oxygen Forensic® Cloud Extractor. Updated data extraction from Google My Activity and Google Home.
- Oxygen Forensic® JetEngine. Accelerated PhotoDNA hash search.
- Applications. Added data parsing from 200+ new app versions from Apple iOS and Android devices. The total amount of supported versions exceeds 11,400+!
- Applications. Messengers. Added data parsing from WhatsApp Business (2.19.80) from Apple iOS devices.
- Applications. Multimedia. Added data parsing from FaceApp (3.4.9) from Apple iOS devices and FaceApp (3.4.12.1) from Android devices.
- Applications. Messengers. Updated data parsing from WhatsApp Business (2.19.69) from Android devices.
- Applications. Messengers. Updated data parsing from WhatsApp (2.19.220) from Android devices and WhatsApp (2.19.80) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Viber (11.2.0.24) from Android devices and Viber (11.2) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from GroupMe (5.32.0) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Threema (4.3.1) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Line (9.13.2) from Android devices.
- Applications. Messengers. Updated data parsing from Skype (8.50.0.43) from Android devices.
- Applications. Messengers. Updated data parsing from TamTam Messenger (2.7.0) from Android devices.
- Applications. Messengers. Updated data parsing from Zangi Private Messenger (4.5.9) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Azar Messenger (3.43.1) from Android devices.
- Applications. Messengers. Updated data parsing from Wickr Me (5.28.1) from Android devices.
- Applications. Messengers. Updated data parsing from ICQ (7.9.1) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from LinkedIn (9.1.142) from Apple iOS devices and LinkedIn (4.1.337.2) from Android devices.
- Applications. Social Networks. Updated data parsing from Instagram (105.0) from Apple iOS devices and Instagram (105.0.0.18.119) from Android devices.
- Applications. Social Networks. Updated data parsing from VSCO (124) from Android devices and VSCO (125.0) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from Twitter (8.8.0-release.82) from Android devices.
- Applications. Social Networks. Updated data parsing from Odnoklassniki (19.8.5) from Android devices and Odnoklassniki (8.11) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from VK (5.40) from Android devices and VK (5.21.2) from Apple iOS devices.
- Applications. Web Browsers. Updated data parsing from Google Chrome (76.0.3809.111) from Android devices.
- Applications. Web Browsers. Updated data parsing from Firefox (68.0) from Android devices.
- Applications. Business. Updated data parsing from Flipboard (4.2.20) from Android devices.
- Applications. Business. Updated data parsing from Google Keep (5.19.311.03.40) from Android devices.
- Applications. Business. Updated data parsing from Yahoo Mail (5.43.2) from Android devices.
- Applications. Business. Updated data parsing from Google Translate (6.1.0) from Apple iOS devices.

- Applications. Business. Updated data parsing from Yandex Mail (3.87.1) from Apple iOS devices and Yandex Disk (2.78) from Apple iOS devices.
- Applications. Business. Updated data parsing from OneDrive (10.78.14) from Apple iOS devices.
- Applications. Business. Updated data parsing from SHAREit (3.1.28) from Apple iOS devices and SHAREit (5.0.49) from Android devices.
- Applications. Multimedia. Updated data parsing from Google photos (4.21.0.25) from Android devices.
- Applications. Multimedia. Updated data parsing from YouTube (14.31.51) from Android devices and YouTube (14.30) from Apple iOS devices.
- Applications. Navigation. Updated data parsing from Waze (4.53.5.0) from Android devices and Waze (4.53.5) from Apple iOS devices.
- Applications. Fitness. Updated data parsing from Google Fit (2.19.12-130) from Android devices.
- Applications. Fitness. Updated data parsing from Strava (108.0.0) from Android devices.

### Changes in version 11.5 (July 2019):

- Oxygen Forensic® JetEngine. Added <u>Faces section</u>. Now investigators can categorize human faces using the built-in facial recognition technology available to all Detective license users at no additional charge.
- Oxygen Forensic® Cloud Extractor. Added the ability to extract <u>iCloud Backups</u> made from Apple iOS 11.2 and higher devices with 2FA enabled via login and password.
- Oxygen Forensic® Cloud Extractor. Added the ability to extract Line account information and contacts from <u>Line</u> via login/password, QR code or token.
- Oxygen Forensic® Cloud Extractor. Added the ability to extract calls and messages from Line Google backups via Google master token or login/password.
- Oxygen Forensic® Cloud Extractor. Added extraction of additional account owner and device information from Huawei Cloud service.
- Oxygen Forensic® Cloud Extractor. Added additional data extraction from Google My Activity: Google Takeout, Google My Business, Discover, Kids Home, Device Information, and Podcasts.
- Oxygen Forensic® Cloud Extractor. Accelerated data extraction from Google Photos.
- Oxygen Forensic® KeyScout. Added the ability to save Windows OS information to ODB file that can be later imported in Oxygen Forensic® JetEngine.
- Oxygen Forensic® KeyScout. Added the ability to configure detailed search and bruteforce settings.
- Oxygen Forensic® KeyScout. Redesigned user interface.
- Oxygen Forensic® Extractor. Added the ability to bypass both screen lock and software or hardware disk encryption on MTK Android devices.
- Oxygen Forensic® Extractor. Added the ability to extract several Apple iOS devices simultaneously.
- Oxygen Forensic® Extractor. Added 2 modes for automatic Apple iOS device connection: now investigators can choose an iTunes backup procedure for non-jailbroken devices and full file system extraction for jailbroken ones.
- Oxygen Forensic® Extractor. Added preliminary support for Apple iOS 13.0 and support for iTunes 12.9.
- Oxygen Forensic® SQLite Viewer. Added information about the database structure in DDL (Data Definition Language).
- Oxygen Forensic® SQLite Viewer. Improved work with non standard table names and fields and enhanced deleted records recovery.
- Oxygen Forensic® JetEngine. Added the ability to export data to Relativity format.
- Oxygen Forensic® JetEngine. Added parsing of <u>Screen Time information</u> from jailbroken Apple iOS devices and GrayKey images.
- Oxygen Forensic® JetEngine. General. Added a contact card that contains detailed information about a selected contact: general information, communications and statistics.
- Oxygen Forensic® JetEngine. General. Added the ability to create a note for a device.
- Oxygen Forensic® JetEngine. General. Added the ability to create hash sets based on device file hash sets.
- Oxygen Forensic® JetEngine. General. Added the ability to mark data as not relevant and exclude it from a OFBR backup.
- Oxygen Forensic® JetEngine. Messages. Added the ability to show only important messages in chats.
- Oxygen Forensic® JetEngine. Export. Added the ability to export messages to separate files.
- Oxygen Forensic® JetEngine. Export. Added the ability to export every thread to separate files.
- Applications. Added data parsing from 1,000+ new app versions from Apple iOS and Android devices. The total amount of supported versions exceeds 11,200!
- Applications. Messengers. Added data parsing from Zangi Private Messenger (4.5.7) from Apple iOS devices and Zangi Private Messenger (4.8.1) from Android devices.
- Applications. Messengers. Added data parsing from Samsung Memo (16.0.00-342) from Android devices.
- Applications. Messengers. Updated data parsing from Telegram (5.9.1) from Apple iOS devices and Telegram (5.9) from Android devices.
- Applications. Messengers. Updated data parsing from Telegram X (0.21.9.1172) from Android devices.
- Applications. Messengers. Updated data parsing from Threema (4.3) from Apple iOS devices and Threema (3.7) from Android devices.

- Applications. Messengers. Updated data parsing from Line (9.8.0) from Apple iOS devices and Line (9.12.0) from Android devices.
- Applications. Messengers. Updated data parsing from WhatsApp (2.19.191) from Android devices and WhatsApp (2.19.70) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from WhatsApp Business (2.19.59) from Android devices.
- Applications. Messengers. Updated data parsing from Viber (11.0.1.0) from Android devices and Viber (11.0) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Android Messages (4.4.076) from Android devices.
- Applications. Messengers. Updated data parsing from Skype (8.49.0.49) from Android devices and Skype (8.48) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from ICQ (7.9) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Kik Messenger (15.13.1.21523) from Android devices.
- Applications. Messengers. Updated data parsing from Azar Messenger (3.42.0) from Android devices.
- Applications. Messengers. Updated data parsing from imo free calls and chat (9.8.000000012261) from Android devices and imo video calls and chat (2019.1.2) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from imo beta free calls and text (9.8.000000012282) from Android devices.
- Applications. Messengers. Updated data parsing from GroupMe (5.31.0) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from TamTam (2.6.3) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from VIPole (2.0.84) from Android devices.
- Applications. Social Networks. Updated data parsing from Instagram (102.0) from Apple iOS devices and Instagram (102.0) from Android devices.
- Applications. Social Networks. Updated data parsing from LinkedIn (4.1.329) from Android devices and LinkedIn (9.1.139) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from Twitter (8.4.0-release.73) from Android devices and Twitter (7.49) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from VSCO (119) from Android devices and VSCO (121.0) from iOS devices.
- Applications. Social Networks. Updated data parsing from OK (8.8) from Apple iOS devices and OK (19.7.9) from Android devices.
- Applications. Social Networks. Updated data parsing from VK (5.39) from Android devices and VK (5.19.2) for Apple iOS devices.
- Applications. Web Browsers. Updated data parsing from Firefox (18.1) from Apple iOS devices and Firefox (67.0.3) from Android devices.
- Applications. Web Browsers. Updated data parsing from Google Chrome (75.0.3770.103) from Apple iOS devices and Google Chrome (75.0.3770.101) from Android devices.
- Applications. Web Browsers. Updated data parsing from Opera Mini (43.1.2254.140112) from Android devices.
- Applications. Business. Updated data parsing from Amazon Shopping (18.12.0.100) from Android devices.
- Applications. Business. Updated data parsing from Flipboard (4.2.16) from Android devices.
- Applications. Business. Updated data parsing from Gmail (2019.06.09.254811277) from Android devices.
- Applications. Business. Updated data parsing from Google Keep (5.19.191.07.40) from Android devices and Google Keep (2.2019.22202) from Apple iOS devices.
- Applications. Business. Updated data parsing from KYMS (3.4.8) from Apple iOS devices.
- Applications. Business. Updated data parsing from Mail.ru email app (9.5.0) from Android devices and Mail.ru email app (9.21) from Apple iOS devices.
- Applications. Business. Updated data parsing from OneDrive (10.73.7) from Apple iOS devices.
- Applications. Business. Updated data parsing from SHAREit (3.1.08) from Apple iOS devices and SHAREit (5.0.18\_ww) from Android devices.
- Applications. Business. Updated data parsing from Yahoo Mail! (5.40.2) from Android devices and Yandex.Mail (3.86.3) from Apple iOS devices.
- Applications. Business. Updated data parsing from Yandex.Disk (4.16.1) from Android devices and Yandex.Disk (2.77) from Apple iOS devices.
- Applications. Fitness. Updated data parsing from Google Fit (2.16.22-130) from Android devices.
- Applications. Fitness. Updated data parsing from Strava (107.0.0) from Android devices.
- Applications. Travel. Updated data parsing from Aeroflot (3.21.2.703) from Android devices.
- Applications. Travel. Updated data parsing from Yandex. Taxi (4.79) from Apple iOS devices.
- Applications. Navigation. Updated data parsing from Waze (4.52.5) from Apple iOS devices and Waze (4.52.5.5) from Android devices.
- Applications. Multimedia. Updated data parsing from Google Photos (4.19.0) from Android devices.
- Applications. Multimedia. Updated data parsing from Hide Pictures & Videos Vaulty (4.8.17 release r12300) from Android devices.

- Applications. Multimedia. Updated data parsing from YouTube (14.28) from Apple iOS devices and YouTube (14.25.61) from Android devices.
- General. Added support for 800+ new Android devices: Huawei HONOR 8S, Huawei Y9 Prime 2019, Huawei HONOR 20 PRO, Samsung Galaxy M20, Samsung Galaxy M40, Samsung Galaxy Tab A (8.0, 2019), Xiaomi Mi A3, Xiaomi MI CC 9e, Xiaomi Mi MIX 3 5G, etc. The total number of supported devices exceeds 30,000.

## Changes in version 11.4.2 (June 2019):

- Oxygen Forensic® Cloud Extractor. Updated data extraction algorithm for WhatsApp QR service.
- Oxygen Forensic® Cloud Extractor. Updated 2FA support for Telegram service.
- Oxygen Forensic® KeyScout. Updated WhatsApp QR token extraction support from WhatsApp Desktop.

### Changes in version 11.4.1 (June 2019):

- Oxygen Forensic® Cloud Extractor. Updated authorization algorithm for WhatsApp QR service.
- Oxygen Forensic® Cloud Extractor. Added Proxy support for Booking.com.
- Oxygen Forensic® Cloud Extractor. Added 2FA support for Amazon Shopping.
- Oxygen Forensic® Cloud Extractor. Updated 2FA support for Amazon Alexa.
- Oxygen Forensic® KeyScout. Updated algorithm of TamTam token extraction from TamTam Desktop app.
- Oxygen Forensic® Extractor. Updated data parsing from Huawei backups v.9.1 and HiSuite backups v.9.1.
- Applications. Messengers. Updated data parsing from Facebook Messenger (214.0.0.20.111) from Android devices.
- Applications. Messengers. Updated data parsing from Facebook Messenger Lite (58.0.0.9.176) from Android devices.

### Changes in version 11.4 (May 2019):

- Oxygen Forensic® Cloud Extractor. Added the ability to extract account information, trusted devices, logins, passwords, tokens and other data from <u>iCloud Keychain</u> via login and password.
- Oxygen Forensic® Cloud Extractor. Added the ability to extract account information, contacts, chats and calls from Wickr Me via password or token.
- Oxygen Forensic® Cloud Extractor. Added the ability to extract all the available data from Amazon Shopping via password or token.
- Oxygen Forensic® Cloud Extractor. Added the ability to extract hotel search and booking history, bank card details and other available data from Booking.com.
- Oxygen Forensic® Cloud Extractor. Updated authorization algorithm for Windows Phone Cloud Data.
- Oxygen Forensic® KeyScout. Added the ability to extract history, bookmarks, autofill forms and cookies from <u>desktop web browsers</u>. The collected data can be imported and viewed in Oxygen Forensic® JetEngine.
- Oxygen Forensic® KeyScout. Added the ability to find passwords and tokens in Microsoft Edge web browser.
- Oxygen Forensic® KeyScout. Added the ability to find a token to Wickr Me desktop app.
- Oxygen Forensic® KeyScout. Added the ability to find a password to Booking.Com app.
- Oxygen Forensic® Extractor. Added the ability to perform physical extraction bypassing screen lock on over 70 Android devices based on Qualcomm MSM8939 chipset in EDL mode.
- Oxygen Forensic® Extractor. Added the ability to upload a third-party Firehose bootloader file to perform a physical extraction of Qualcomm-chipset Android devices.
- Oxygen Forensic® Extractor. Added the ability to import and parse Parrot Bluegrass binary log files.
- Oxygen Forensic® Extractor. Added detailed information in the drone dump import menu.
- Oxygen Forensic® Extractor. Added the ability to import and parse logical iOS \*.XRY extractions.
- General. Added the ability to export Oxygen Forensic® Detective extractions to Oxygen Forensic® JetEngine by right-clicking on the extraction in the device tree and choosing the <u>export option</u> there.
- Oxygen Forensic® JetEngine. Maps. Added graphs and diagrams with additional parameters.
- Oxygen Forensic® JetEngine. General. Added support for Imperial measurement system.
- Oxygen Forensic® JetEngine. General. Added the ability to import extractions obtained via Oxygen Forensic® KeyScout.
- Oxygen Forensic® JetEngine. General. Added the ability to import and parse Parrot drone flight logs and Parrot physical dumps.
- Oxygen Forensic® JetEngine. General. Added the ability to import and parse Huawei backups.
- Oxygen Forensic® JetEngine. General. Redesigned case view list.
- Oxygen Forensic® JetEngine. General. Added the ability to save several extractions or the whole case to one archive file.
- Oxygen Forensic® JetEngine. Contacts. Added the information about contacts added to the black list in Apple iOS devices.
- Oxygen Forensic® JetEngine. Apple iOS device Information. Added information about additional parameters: Apple ID, time zone, ICCID, iCloud account, last backup date, etc.
- Oxygen Forensic® JetEngine. Apple iOS device Information. Added information about SIM card history.
- Oxygen Forensic® JetEngine. Applications. Added additional sources of application data.

- Oxygen Forensic® JetEngine. Social Graph. Added new modes and optimized work with a huge amount of information.
- Oxygen Forensic® JetEngine. Timeline. Added filter by contacts.
- Oxygen Forensic® JetEngine. Messages. Added parsing of message drafts from Apple iOS devices.
- Applications. Added data parsing from 300+ new app versions from Apple iOS and Android devices. The total amount of supported versions exceeds 10,100.
- Applications. Messengers. Added data parsing from WhatsApp Business (2.19.44) from Android devices.
- Applications. Business. Added data parsing from Amazon Shopping (13.9.0) from Apple iOS devices and Amazon Shopping (18.9.0.100) from Android devices.
- Applications. Messengers. Updated data parsing from WhatsApp (2.19.51) from Apple iOS devices and WhatsApp (2.19.152) from Android devices.
- Applications. Messengers. Updated data parsing from Viber (10.7) from Apple iOS devices and Viber (10.7.0.4) from Android devices.
- Applications. Messengers. Updated data parsing from Skype (8.45) from Apple iOS devices and Skype (8.44.0.60) from Android devices.
- Applications. Messengers. Updated data parsing from Wickr Me (5.16.3) from Android devices.
- Applications. Messengers. Updated data parsing from Facebook Messenger (215.0) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Telegram (5.6.1) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from TamTam (2.6.2) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Hangouts (30.0.239887060) from Android devices and Hangouts (26.0.0) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from OK (8.0) from Apple iOS devices and OK (19.5.20) from Android devices.
- Applications. Web Browsers. Updated data parsing from Chrome (74.0.3729.136) from Android devices.
- Applications. Travel. Updated data parsing from Booking.com (19.3) from Apple iOS devices and Booking.com (17.7) from Android devices.
- Applications. Business. Updated data parsing from Google Keep (5.19.191.07.40) from Android devices.
- Applications. Fitness. Updated data parsing from Samsung Health (1.10.0) from Apple iOS devices.
- Applications. Multimedia. Updated data parsing from Google Photos (4.17) from Apple iOS devices.
- Applications. Multimedia. Updated data parsing from YouTube (14.18) from Apple iOS devices.
- General. Added support for 1,500+ new Android devices: Xiaomi Mi 9 SE, Samsung Galaxy A60, Samsung Galaxy A70, Meizu X8, Meizu Note 8, Meizu Note 9, etc. The total number of supported devices exceeds 29,200.

## Changes in version 11.3.1 (April 2019):

- Oxygen Forensic<sup>®</sup> Extractor. Added manual selection of bootloader file for MTK Android devices. Now investigators can select a bootloader file from the list or import a third-party one.
- Oxygen Forensic<sup>®</sup> Extractor. Added additional MTK devices to our supported by physical extraction list. The total amount of supported MTK chipsets now exceeds 60.
- Oxygen Forensic<sup>®</sup> Extractor. Added additional information detailing every step of logical device extraction when the automatic acquisition mode is selected.
- Oxygen Forensic<sup>®</sup> Cloud Extractor. Added authorization in BlaBlaCar service via VKontakte credentials.
- Oxygen Forensic<sup>®</sup> Cloud Extractor. Updated authorization algorithm for Huawei Cloud service.
- Oxygen Forensic<sup>®</sup> JetEngine. Added the ability to import and parse Xiaomi backups.
- Export. Now in Timeline the Chat view investigators can export data grouped by type.
- Applications. Added data parsing from 100+ new app versions from Apple iOS and Android devices. The total amount of supported versions exceeds 9,700.
- Applications. Messengers. Added data parsing from Telegram X (0.21.3.1036) from Android devices.
- Applications. Messengers. Updated data parsing from Telegram X (5.0.17) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Telegram (5.5.1) from Apple iOS devices and Telegram (5.5.0) from Android devices.
- Applications. Messengers. Updated data parsing from WhatsApp Messenger (2.19.103) from Android devices and WhatsApp Messenger (2.19.41) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Viber (10.4) from Apple iOS devices and Viber (10.5.0.5) from Android devices.
- Applications. Messengers. Updated data parsing from Skype (8.42) from Apple iOS devices and Skype (8.43.0.53) from Android devices.
- Applications. Messengers. Updated data parsing from Facebook Messenger (205.0) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from Instagram (82.0) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from OK (7.53) from Apple iOS devices and OK (19.4.9) from Android devices.
- Applications. Web Browsers. Updated data parsing from Firefox (16.0) from Apple iOS devices and Firefox (66.0.2) from Android devices.

- Applications. Web Browsers. Updated data parsing from Chrome (73.0.3683.68) from Apple iOS devices.
- General. Added support for 300+ new Android devices: Samsung Galaxy M10, Samsung Galaxy S10 5G, Samsung Galaxy A50, Samsung Galaxy A40, Samsung Galaxy A30, Samsung Galaxy A20, Samsung Galaxy A10, etc.
- Oxygen Forensic<sup>®</sup> Extractor. Fixed an issue when some MMS attachments were not included in the Messages section when a logical extraction was done using OxyAgent.
- Export. Fixed an issue with the EXIF data output.
- General. Fixed an issue with saving the case name to OFB archive.

## Changes in version 11.3 (April 2019):

- Oxygen Forensic<sup>®</sup> Cloud Extractor. Added the industry's only ability to extract detailed flight history from My Parrot Cloud via login/password or token found in Apple iOS and Android devices.
- Oxygen Forensic<sup>®</sup> Cloud Extractor. Added the ability to extract data from <u>Apple Maps</u> via login/password or token acquired from Apple iOS device. Forensic experts gain access to account information, bookmarks, search history and attached images.
- Oxygen Forensic<sup>®</sup> Cloud Extractor. Added the ability to extract ride history and other available data from Yandex. Taxi via phone number or token taken from a mobile device.
- Oxygen Forensic<sup>®</sup> Cloud Extractor. Added the ability to select file types that will be extracted from Google Drive: documents, tables, presentations, etc.
- Oxygen Forensic<sup>®</sup> Cloud Extractor. Updated the ability to extract <u>Google Photos</u> via login/password or Google master token. Now experts can extract contact lists, private and public photos and videos with geo coordinates and other metadata, information about the account and albums and comments to them.
- Oxygen Forensic<sup>®</sup> Cloud Extractor. Updated authorization algorithm for all iCloud services.
- Oxygen Forensic<sup>®</sup> KeyScout. Added the ability to find passwords for My Parrot cloud account in desktop web browsers.
- Oxygen Forensic<sup>®</sup> KeyScout. Added the ability to find iTunes backups saved on PC. Found backups can be imported and parsed in Oxygen Forensic<sup>®</sup> Detective or Oxygen Forensic<sup>®</sup> JetEngine.
- Oxygen Forensic<sup>®</sup> KeyScout. Added Full and Optimal search modes that offer the ability to extract passwords and tokens from portable web browser and other program versions and programs with the unusual installation paths. By default Optimal search mode is selected.
- Oxygen Forensic<sup>®</sup> Extractor. Added the ability to extract hardware bound keys and decrypt physical images of the devices based on <a href="MediaTek MT6737">MediaTek MT6737</a> chipset even if Secure Startup is enabled.
- Oxygen Forensic<sup>®</sup> Extractor. Added the ability to extract and decrypt encryption keys from the <u>Android KeyStore</u>. Found keys are shown in Passwords section.
- Oxygen Forensic<sup>®</sup> Extractor. Now drone flight logs that belong to the same drone model can be identified by the drone serial number.
- Oxygen Forensic<sup>®</sup> Extractor. Added the ability to import and parse Android \*.XRY physical images.
- Oxygen Forensic<sup>®</sup> JetEngine. Added the ability to import and parse Android CWM and Android TWRP images.
- Oxygen Forensic<sup>®</sup> JetEngine. Added the ability to import and parse DJI flight logs extracted from a mobile app, DJI cloud or DJI Assistant desktop app.
- Oxygen Forensic<sup>®</sup> JetEngine. Added the ability to import and parse physical dumps of DJI Phantom 3 and DJI Inspire 1 drones.
- Oxygen Forensic<sup>®</sup> JetEngine. Added the ability to view <u>DJI RAW Logs</u> extracted from DJI physical dumps and DJI Assistant app.
- Oxygen Forensic<sup>®</sup> JetEngine. Added extended device parameters extracted from Android physical dumps: Android ID, PIN-code, Phone Activation Time, Language, used SIM cards and many others.
- Oxygen Forensic<sup>®</sup> JetEngine. Added the ability to build a Social Graph for several extractions.
- Oxygen Forensic<sup>®</sup> JetEngine. Added the ability to create a video showing direction of travel created by route paths in the Maps module.
- Oxygen Forensic<sup>®</sup> JetEngine. Added the ability to use custom settings to merge similar contacts.
- Oxygen Forensic<sup>®</sup> JetEngine. Added OS Artifacts section where forensic experts can find the following additional artifacts from Apple iOS jailbroken devices: applications activity, process activity, battery usage, lock state history, Siri activity, etc.
- Oxygen Forensic<sup>®</sup> JetEngine. Added extra information about each extracted application. Investigators can now view such information as purchase date, genre, version, etc.
- Oxygen Forensic<sup>®</sup> JetEngine. Added the ability to view JSON and XML files in a separate tab.

- Oxygen Forensic<sup>®</sup> JetEngine. Now investigators can choose a country and change categories in Project VIC settings.
- Oxygen Forensic<sup>®</sup> JetEngine. Added data export to XML file format.
- Applications. Added data parsing from 400+ new app versions from Apple iOS and Android devices. The total amount of supported versions exceeds 9,600.
- Applications. Messengers. Added the industry's only ability to decrypt data from <u>Signal</u> (4.35.3) from Android devices. Decryption is done with the encryption key from the Android KeyStore.
- Applications. Messengers. Added data parsing from Telegram X (5.0.17) from Apple iOS devices.
- Applications. Drones. Added data parsing from Freeflight 6 (6.4.2) from Apple iOS devices and Freeflight 6 (6.4.1) from Android devices.
- Applications. Travel. Added data parsing from Yandex. Taxi (4.66) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from WhatsApp (2.19.86) from Android devices and WhatsApp (2.19.30) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Telegram (5.4.1) from Apple iOS devices and Telegram (5.3.1) from Android devices.
- Applications. Messengers. Updated data parsing from Viber (10.3) from Apple iOS devices and Viber (10.3) from Android devices.
- Applications. Social Networks. Updated data parsing from Facebook (210.0) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from VK (5.31) from Android devices and VK (5.9.1) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from OK (7.50.1) from Apple iOS devices and OK (19.3.26) from Android devices.
- Applications. Drones. Updated data parsing from Freeflight Pro (5.2.4) from Apple iOS devices and Freeflight Pro (5.2.4) from Android devices.
- Applications. Multimedia. Updated data parsing from Google Photos (4.10) from Android devices and Google Photos (4.10) from Apple iOS devices.
- Applications. Business. Updated data parsing from Yandex.Disk (4.08) from Android devices and Yandex.Disk (2.68) from Apple iOS devices.
- Applications. Travel. Updated data parsing from Yandex. Taxi (3.89) from Android devices.
- General. Added support for 1,100+ Android devices: Xiaomi MI 9 SE, Xiaomi Redmi Go, ZTE Blade V10 Vita, Sony Xperia 10 Plus, Sony Xperia 10, Samsung Galaxy S10, Samsung Galaxy S10e, Samsung Galaxy S10+, etc. The total number of supported devices exceeds 27,000.

## Changes in version 11.2.0.100 (February 2019):

Oxygen Forensic<sup>®</sup> Extractor. Fixed connection issue of MTK Android devices.

## Changes in version 11.2 (February 2019):

- Oxygen Forensic<sup>®</sup> Cloud Extractor. Added industry's only method to extract data from <u>BlaBlaCar</u> via login/password and token. Investigators now will gain access to data relating to trips, travelers, cars, chats, and reviews.
- Oxygen Forensic<sup>®</sup> Cloud Extractor. Added the ability to extract <u>Apple Health</u> data via login/password or token. Extracted data includes detailed information about a user's activity, sleep, mindfulness, nutrition as well as paired devices, and account details.
- Oxygen Forensic<sup>®</sup> Cloud Extractor. Added the ability to extract additional data from Telegram including calls, polls, bot messages and albums.
- Oxygen Forensic<sup>®</sup> Extractor. Added the ability to analyze and visualize the flight data of <u>Parrot drones</u> including the following models: Anafi, Bebop, Bebop 2 and Disco. Now investigators can import and parse flight logs obtained by physical dumps or produced by the FreeFlight Pro mobile app.
- Oxygen Forensic<sup>®</sup> Extractor. Added the ability to decrypt physical dumps with the known password for Android devices based on Qualcomm Snapdragon MSM8909 chipset.
- Oxygen Forensic<sup>®</sup> Extractor. Improved our EDL screen lock bypass method. Now investigators can conduct physical extractions of any Android device based on the following Qualcomm Snapdragon chipsets: MSM8909, MSM8916, MSM8952. Investigators simply select the associated chipset in Oxygen Forensic<sup>®</sup> Extractor. This is a great improvement since the previous method required the investigator to select the exact device model.
- Oxygen Forensic<sup>®</sup> JetEngine. Added the ability to view and export the <u>Files section</u> of a case. Investigators can now analyze files from several extractions in one view.
- Oxygen Forensic<sup>®</sup> JetEngine. Added the ability to import and parse <u>DJI drone flight logs</u>. Investigators can now analyze extended technical information that includes drone acceleration, gyroscope and temperature details.
- Oxygen Forensic<sup>®</sup> JetEngine. Added the ability to open Plist files in the redesigned and built-in Plist Viewer.

- Oxygen Forensic<sup>®</sup> JetEngine. Added the ability to manually or automatically merge similar contacts and export them to a report.
- Oxygen Forensic<sup>®</sup> JetEngine. Added the ability to recover deleted files from EXT3\4 dumps from the file system journal.
- Oxygen Forensic<sup>®</sup> JetEngine. Added support for the F2FS file system.
- Oxygen Forensic<sup>®</sup> JetEngine. Added additional settings for a backup imports: hash types, nested archive unpacking and deleted file recovery.
- Oxygen Forensic<sup>®</sup> JetEngine. Added the ability to export data from the Social Graph to a report.
- Oxygen Forensic<sup>®</sup> JetEngine. Added the ability to exclude files marked as known files from a report.
- Messages. Added video files and HEIC image files preview in Chats view.
- File Browser. Added video files preview.
- Export. Added the ability to mark hash sets of the files that need to be excluded from a report.
- File Browser. Extended support for file formats.
- Search. Added information about PhotoDNA hashes in Project VIC reports.
- Search. Added support for CgBI file format for PhotoDNA search.
- Applications. Added data parsing from 400+ new app versions from Apple iOS and Android devices. The total amount of supported versions exceeds 9,250.
- Applications. Messengers. Added data parsing from <u>CoverMe</u> (3.0.1) from Apple iOS devices. Now investigators have the industry's only ability to decrypt the secure messenger data including contacts, private and group chats, private vault, notifications and other available information.
- Applications. Travel. Added data parsing from BlaBlaCar (5.21.0) from Android devices and BlaBlaCar (5.30.0) from Apple iOS devices.
- Applications. Social Networks. Added data parsing from VSCO (97.0) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Facebook Messenger (199.1.0.21.112) from Android devices and Facebook Messenger (198.0) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Viber (10.0.0.14) from Android devices and Viber (10.0) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from TamTam (2.4.0) from Android devices and TamTam (2.5.5) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Azar Messenger (3.38.0) from Android devices and Azar Messenger (1.33.1) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Google Duo (45.0) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from Facebook (204.0) from Apple iOS devices.
- Applications. Web Browsers. Updated data parsing Firefox (64.0.2) from Android devices.
- Applications. Web Browsers. Updated data parsing Google Chrome (71.0.3578.99) from Android devices.
- Applications. Business. Updated data parsing from Google Translate (5.26.0) from Android devices and Google Translate (5.26.0) from Apple iOS devices.
- Applications. Business. Updated data parsing from Mail.Ru Email App (8.7.0) from Android devices and Mail.Ru Email App (9.15) from Apple iOS devices.
- Applications. Business. Updated data parsing from Google Keep (5.0.503.03.40) from Android devices.
- Applications. Business. Updated data parsing from Yahoo! Mail (5.36.0) from Android devices.
- Applications. Business. Updated data parsing from Flipboard (4.2.8) from Android devices.
- General. Added support for 1,000+ Android devices: Asus ZenFone Max M2, Asus ZenFone Max Pro M2, Sony Xperia XZ2 Premium, teXet Texet TM-5581, Xiaomi MI PLAY, Xiaomi Mi 3, Xiaomi MI 2A, ZTE ZTE-V9 VITA, etc. The total number of supported devices exceeds 26,000.

# Changes in version 11.1.1 (December 2018):

- Oxygen Forensic<sup>®</sup> Cloud Extractor. Added the ability to extract information about friends from Samsung Health.
- Oxygen Forensic<sup>®</sup> Cloud Extractor. Updated support for DJI Cloud.
- Applications. Messengers. Updated data parsing from WhatsApp (2.18.110) from Apple iOS devices and WhatsApp (2.18.382) from Android devices.
- Applications. Messengers. Updated data parsing from Viber (9.9.3) from Apple iOS devices and Viber (9.9.1.12) from Android devices.
- Applications. Social Networks. Updated data parsing from Facebook (200.0.0.50.194) from Android devices.
- Applications. Business. Updated data parsing from Flipboard (4.2.6) from Android devices.

## Changes in version 11.1 (December 2018):

• Oxygen Forensic<sup>®</sup> JetEngine is here! This powerful new 64-bit module allows investigators to quickly parse volumes of data and leverage advanced analytical tools to quickly pinpoint and quantify evidence. Available to all Oxygen Forensic<sup>®</sup> Detective users at no additional charge.

- Oxygen Forensic<sup>®</sup> Cloud Extractor. Added the ability to extract data from <u>Fitbit</u>. Investigators can gain access to workout logs, health data, incoming messages, friend and device lists and other data.
- Oxygen Forensic<sup>®</sup> Cloud Extractor. Added the ability to extract data from Google Fit via login/password or Google master token. Investigators can acquire workout details, health and food data and other valuable information. An Industry first!
- Oxygen Forensic<sup>®</sup> Cloud Extractor. Added the ability to extract data from <u>Samsung Health</u> via login/password or Samsung Health token. Investigators can gain access to workout logs, health and food data. Another Industry first!
- Oxygen Forensic<sup>®</sup> Cloud Extractor. Added the ability to extract data from <u>Uber</u>. The service allows investigators to extract the complete information about trips including maps and driver details. Now another industry first!
- Oxygen Forensic<sup>®</sup> Cloud Extractor. Added the ability to extract data from Telegram Passport: account owner's personal information, documents, address, email and phone number. The fourth industry first feature in a single release!
- Oxygen Forensic<sup>®</sup> Cloud Extractor. Added the ability to extract iCloud Bookmarks from the accounts created from Apple devices running iOS 11 and iOS 12.
- Oxygen Forensic<sup>®</sup> Cloud Extractor. Added Proxy support for the following services: Samsung Health, FitBit, Google Fit, Uber and Telegram Passport.
- Oxygen Forensic<sup>®</sup> Cloud Extractor. Accelerated data extraction from cloud services with large amounts of files.
- Oxygen Forensic<sup>®</sup> KeyScout. Added the ability to find passwords to Google Fit, Fitbit, Samsung Health and Uber accounts in Desktop web browsers.
- Oxygen Forensic<sup>®</sup> Extractor. Added a new tool called Data Agent. Data Agent allows the investigator to run a logical acquisition of Android devices via portable OxyAgent installed on a SD card. This method allows to extract data when a device with Android OS 4.0 or higher cannot be connected via USB cable, for example, due to a broken USB port or charging only port.
- Oxygen Forensic<sup>®</sup> Extractor. Added the ability to quickly configure a custom data parser for MTK chipset devices if data from them was not parsed by the default parser.
- Oxygen Forensic<sup>®</sup> Extractor. Improved rooting of Android devices.
- Oxygen Forensic<sup>®</sup> Extractor. Redesigned a program window of device image and backup import.
- Device Information. Added information about hash sums for extracted binary dumps.
- Export. Improved filters by file type.
- Applications. Added data parsing from over 180 new app versions from Apple iOS and Android devices. The total amount of supported versions exceeds 8800.
- Applications. Fitness. Added data parsing from Fitbit (2.83) from Apple iOS devices and Fitbit (2.82) from Android devices.
- Applications. Fitness. Added data parsing from Google Fit (2.05.34-130) from Android devices.
- Applications. Fitness. Added data parsing from Samsung Health (1.6.1) from Apple iOS devices and Samsung Health (6.0.0) from Android devices.
- Applications. Social Networks. Added data parsing from VSCO (87) from Android devices.
- Applications. Messengers. Updated data parsing from WhatsApp (2.18.366) from Android devices and WhatsApp (2.18.102) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Google Duo (42.0) from Android devices and Google Duo (43.0) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from GroupMe (5.26.0) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Kik (14.11.1.17500) from Android devices and Kik (14.8.0) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Skype (8.33) from Apple iOS devices and Skype (8.34.0.72) from Android devices.
- Applications. Messengers. Updated data parsing from Xabber (2.5) from Android devices.
- Applications. Messengers. Updated data parsing from TamTam (2.5.1) from Apple iOS devices and TamTam (2.2.0) from Android devices.
- Applications. Messengers, Updated data parsing from Viber (9.8) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from ViPole (1.9.3) from Android devices.
- Applications. Social Networks. Updated data parsing from Twitter (7.35.0) from Android devices.
- Applications. Social Networks. Updated data parsing from Facebook (199.0.0.56.98) from Android devices.
- Applications. Social Networks. Updated data parsing from VK (5.22) from Android devices and VK (5.3.2) from Apple iOS devices.
- Applications. Web Browsers. Updated data parsing from Firefox (62.0.3) from Android devices.
- Applications. Web Browsers. Updated data parsing from Firefox Focus (7.0.13) from Android devices.
- Applications. Web Browsers. Updated data parsing from Google Chrome (70.0.3538.110) from Android devices.

- Applications. Web Browsers. Updated data parsing from Opera Mini (37.3.2254.133321) from Android devices.
- Applications. Business. Updated data parsing from Google Keep (5.0.441.03.40) from Android devices.
- Applications. Business. Updated data parsing from Google Translate (5.25.0) from Android devices.
- Applications. Business. Updated data parsing from Flipboard (4.2.5) from Android devices.
- Applications. Business. Updated data parsing from Yandex. Disk (3.69) from Android devices.
- Applications. Fitness. Updated data parsing from Strava (72.0.0) from Android devices.
- Applications. Multimedia. Updated data parsing from Youtube (13.44.51) from Android devices.
- Applications. Travel. Updated data parsing from Uber (3.321) from Apple iOS devices.
- General. Added support for over 4500 Android devices: ZTE Optimus Barcelona, ZTE MTC SMART Run 4G, Xiaomi MI 8 UD, Xiaomi MI 8 Explorer Edition, Xiaomi Mi A2 Lite, Xiaomi Mi A2, Samsung Galaxy A9 Pro (SM-A910F), Samsung Galaxy Note 10.1 (SHW-M485W), Motorola moto z3 play, etc. The total number of supported devices exceeds 24900.

## Changes in version 11.0.1 (November 2018):

- Oxygen Forensic<sup>®</sup> Cloud Extractor. Added authorization method via Security Code for Google services.
- Oxygen Forensic<sup>®</sup> Cloud Extractor. Added support for new Telegram and Telegram X token types extracted from Android devices.
- Oxygen Forensic<sup>®</sup> Cloud Extractor. Accelerated authorization process for iCloud Drive, iCloud Applications, iCloud WhatsApp and iCloud Viber services.
- Oxygen Forensic<sup>®</sup> Cloud Extractor. Added Proxy support for VKontakte service.
- General. Added extraction of Telegram and Telegram X tokens from several app accounts from Android devices
- Oxygen Forensic<sup>®</sup> Extractor. Added support for Apple iOS 12.1.
- Search. Added advanced settings for similar images search.
- Applications. Added data parsing from over 200 new app versions from Apple iOS and Android devices. The total amount of supported versions exceeds 8600.
- Applications. Messengers. Updated data parsing from WhatsApp (2.18.93) from Apple iOS devices and WhatsApp (2.18.327) from Android devices.
- Applications. Messengers. Updated data parsing from Viber (9.7) from Apple iOS devices and Viber (9.7.5) from Android devices.
- Applications. Messengers. Updated data parsing from Azar (3.35.3) from Android devices.
- Applications. Messengers. Updated data parsing from Google Hangouts (24.0) from Apple iOS devices and Google Hangouts (27.0) from Android devices.
- Applications. Messengers. Updated data parsing from Kik (14.8.0.14887) from Android devices.
- Applications. Messengers. Updated data parsing from Workchat (187.0.0.30.100) from Android devices.
- Applications. Messengers. Updated data parsing from GroupMe (5.25.0) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Google Duo (41.0) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from Instagram (66.0) from Apple iOS devices and Instagram (66.0) from Android devices.
- Applications. Social Networks. Updated data parsing from Facebook (195.0.0.35.99) from Android devices.
- Applications. Business. Updated data parsing from Box (4.22.4) from Android devices and Box (4.3.7) from Apple iOS devices.
- Applications. Business. Updated data parsing from Flipboard (4.2.3) from Android devices.
- Applications. Business. Updated data parsing from Google Keep (5.0.411.10.40) from Android devices...
- Applications. Business. Updated data parsing from Google Translate (5.24.1) from Android devices.
- Applications. Business. Updated data parsing from Yandex.Disk (2.53) from Apple iOS devices and Yandex.Disk (3.54) from Android devices.
- Applications. Web Browsers. Updated data parsing from Firefox Focus (7.0.12) from Android devices.
- Applications. Travel. Updated data parsing from Uber (3.321) from Apple iOS devices and Uber (4.233) from Android devices.
- Applications. Fitness. Updated data parsing from Endomondo (18.8.3) from Android devices.
- Applications. Fitness. Updated data parsing from Strava (68.0.0) from Android devices.
- Applications. Navigation. Updated data parsing from Waze (4.44) from Apple iOS devices and Waze (4.44.0.3) from Android devices.
- Applications. Multimedia. Updated data parsing from Youtube (13.42) from Apple iOS devices and Youtube (13.42.52) from Android devices.

# Changes in version 11.0 (October 2018):

- Oxygen Forensic<sup>®</sup> Cloud Extractor. Added extraction of <u>WhatsApp data</u> via QR code or WhatsApp QR token. Using this exclusive technology investigators can gain access to contacts, messages with attachments and information about the account and device.
- Oxygen Forensic<sup>®</sup> Cloud Extractor. Added data extraction from <u>Amazon Alexa</u> via login/password or token. Investigators can gain access to account and device details, contacts, messages, calendars, notifications, lists, activities, skills, and other available data.

- Oxygen Forensic<sup>®</sup> Cloud Extractor. Added data extraction from <u>Google Home</u>: account and device details, voice commands, and information about users.
- Oxygen Forensic<sup>®</sup> Cloud Extractor. Added data extraction from <u>SkyPixel</u> via login/password or token. The software extracts account information, messages, notifications, followers, files, etc.
- Oxygen Forensic<sup>®</sup> Cloud Extractor. Added Proxy support for Amazon Alexa, Google (including Google Home), Telegram, Dropbox, WhatsApp QR and Twitter services.
- Oxygen Forensic<sup>®</sup> Cloud Extractor. Added authorization via Google Chrome token found on PC for the majority of supported Google services including Google Calendars, Google Drive, Google Location History, Google Home, Google Photos, etc.
- Oxygen Forensic<sup>®</sup> Cloud Extractor. Added authorization via USB token for Google services.
- Oxygen Forensic<sup>®</sup> Cloud Extractor. Added the ability to run several instances of the program.
- Oxygen Forensic<sup>®</sup> KeyScout. Added <u>WhatsApp QR token extraction</u> from WhatsApp desktop app and web browsers.
- Oxygen Forensic<sup>®</sup> KeyScout. Added Amazon Alexa token extraction from web browsers.
- Oxygen Forensic<sup>®</sup> KeyScout. Added Google token extraction from desktop Google Chrome browser.
- Oxygen Forensic<sup>®</sup> KeyScout. Added Telegram token extraction from web browsers.
- Oxygen Forensic<sup>®</sup> Extractor. Added the ability to brute force and <u>decrypt physical dumps</u> made from LG devices running Android OS 6.x and 7.x. Investigators can either find the password using the built-in Passware module or enter the known password manually. The supported models are: AS992, F700K, F700L, F700S, H820, H820PR, H830, H830, H830GD, H830SV, H831, H850, H850AR, H850K, H850TR, H858, H860, H860N, H868, LS992, RS988, US992, VS987, VS987T,F600K, F600KA, F600LA, F600S, F600SA, H900, H900P, H900PR, H901, H901BK, H960, H960A, H960P, H961, H961N, H961S, H962, H968, VS990, AS811, AS986, AS991, F500K,F500L, F500S, H525, H525N, H810, H810P, H811, H812, H815, H815K, H815L, H815P, H815T, H819, LS991, H818, H818N, H818P, H818PA.
- Oxygen Forensic<sup>®</sup> Extractor. Added logical data extraction from 30+ <u>Smart Watches</u> based on MTK chipset. Investigators can now extract contacts, calls, messages, multimedia files, etc.
- Oxygen Forensic<sup>®</sup> Extractor. Added logical data extraction from 50+ MTK Feature phones. Extracted data includes contacts, calls, messages, calendar, notes, multimedia files, etc.
- Oxygen Forensic<sup>®</sup> Extractor. Updated physical support for <u>DJI Spark drones</u> with the latest firmware versions .0400 and .0500.
- Oxygen Forensic<sup>®</sup> Extractor. Added support for Apple iOS 12.0 and iPhone XS, iPhone XS Max, iPhone XR.
- Messages. Added support for handwritten texts and drawn images in iMessages.
- Timeline. Now data from Web Connections section is shown in Timeline.
- General. Added new message type incoming not received message.
- Export. Key Evidence. Added the ability to export thumbnails of attachments from applications.
- Export. General. Accelerated launch of export engine from sections with large amounts of data.
- Export. General. Added the ability to choose the file size preview in the report: auto or bytes.
- Export. General. Added the ability to choose the thumbnail size for PDF reports.
- Search. Improved search on data from Web Connections section.
- Oxygen Forensic<sup>®</sup> SQLite Viewer. Improved functionality when working with multiple SQLite databases.
- Oxygen Forensic<sup>®</sup> Plist Viewer. Improved support for binary Plist files.
- Applications. Added data parsing from over 500 new app versions from Apple iOS and Android devices. The total amount of supported versions exceeds 8300.
- Applications. Multimedia. Added data parsing from <u>Google Home</u> (1.31.910) from Apple iOS and Google Home (1.30.43) from Android devices.
- Applications. Messengers. Added data parsing from Facebook Messenger Lite (42.0.0.9.189) from Android devices.
- Applications. Messengers. Updated data parsing from Viber (9.6.6) from Apple iOS devices and Viber (9.5.0.6) from Android devices.
- Applications. Messengers. Updated data parsing from WhatsApp (2.18.92) from Apple iOS devices and WhatsApp (2.18.277) from Android devices.
- Applications. Messengers. Updated data parsing from Azar (3.34.4) from Android devices.
- Applications. Messengers. Updated data parsing from CoverMe (2.8.8) from Android devices.
- Applications. Messengers. Updated data parsing from Google Duo (39.0) from Apple iOS devices and Google Duo (39.1) from Android devices.
- Applications. Messengers. Updated data parsing from Google Hangouts (23.0.0) from Android devices.
- Applications. Messengers. Updated data parsing from GroupMe (5.24.0) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Kik (14.5.0) from Apple iOS devices and Kik (14.6.0.13597) from Android devices.
- Applications. Messengers. Updated data parsing from Line (8.12.0) from Apple iOS devices and Line (8.12.2) from Android devices.

- Applications. Messengers. Updated data parsing from Skype (8.30.1) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from ViPole (2.3.5) from Apple iOS devices and ViPole (1.9.3) from Android devices.
- Applications. Messengers. Updated data parsing from TamTam (2.4.12) from Apple iOS devices and TamTam (2.0.0) from Android devices.
- Applications. Messengers. Updated data parsing from Telegram (4.9) from Apple iOS devices and Telegram (4.9.1) from Android devices.
- Applications. Messengers. Updated data parsing from Workchat (178.0) from Apple iOS devices and Workchat (183.0.0.27.92) from Android devices.
- Applications. Social Networks. Updated data parsing from Workplace (186.0) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from VK (4.12.1) from Apple iOS devices and VK (5.18) from Android devices.
- Applications. Social Networks. Updated data parsing from Facebook (190.0.0.34.94) from Android devices.
- Applications. Social Networks. Updated data parsing from Instagram (63.0) from Apple iOS devices and Instagram (62.0) from Android devices.
- Applications. Social Networks. Updated data parsing from Kate Mobile (51.2) from Android devices.
- Applications. Social Networks. Updated data parsing from LinkedIn (4.1.209) from Android devices.
- Applications. Social Networks. Updated data parsing from Odnoklassniki (7.22) from Apple iOS devices and Odnoklassniki (18.8.28) from Android devices.
- Applications. Social Networks. Updated data parsing from Romeo (3.1.0) from Android devices.
- Applications. Social Networks. Updated data parsing from Twitter (7.29.2) from Apple iOS devices.
- Applications. Drones. Updated data parsing from DJI GO (3.1.42) from Apple iOS devices and DJI GO (3.1.43) from Android devices. Added extraction of Skypixel data.
- Applications. Drones. Updated data parsing from DJI GO 4 (4.3.1) from Apple iOS devices and DJI GO 4 (4.3.0) from Android devices. Added extraction of Skypixel data.
- Applications. Web Browsers. Updated data parsing from Firefox Focus (6.1.1) from Android devices.
- Applications. Web Browsers. Updated data parsing from DU browser (6.4.0.4) from Android devices.
- Applications. Web Browsers. Updated data parsing from Firefox Browser (62.0.2) from Android devices.
- Applications. Web Browsers. Updated data parsing from Google Chrome (69.0.3497.100) from Android devices.
- Applications. Web Browsers. Updated data parsing from Opera Mini (16.0.13) from Apple iOS devices and Opera Mini (36.3.2254.130741) from Android devices.
- Applications. Business. Updated data parsing from GMail (8.9.23.215020111) from Android devices.
- Applications. Business. Updated data parsing from Email (4.2) from Android devices.
- Applications. Business. Updated data parsing from Flipboard (4.2.1) from Android devices.
- Applications. Business. Updated data parsing from Google Keep (5.0.371.03.40) from Android devices.
- Applications. Business. Updated data parsing from Google Translate (5.23.0) from Android devices.
- Applications. Business. Updated data parsing from Yandex.Disk (2.52) from Apple iOS devices and Yandex.Disk (3.52) from Android devices.
- Applications. Fitness. Updated data parsing from Endomondo (18.8.1) from Android devices.
- Applications. Fitness. Updated data parsing from Strava (64.0.0) from Android devices.
- Applications. Navigation. Updated data parsing from Yandex.Maps (10.5.5) from Apple iOS devices and Yandex.Maps (7.6.2) from Android devices.
- Applications. Navigation. Updated data parsing from Waze (4.43) from Apple iOS devices and Waze (4.43.1.1) from Android devices.
- Applications. Finance. Updated data parsing from Sberbank (8.4.0) from Android devices.
- Applications. Multimedia. Updated data parsing from Youtube (13.36) from Apple iOS devices and Youtube (13.37.52) from Android devices.
- General. Added support for over 350 Android devices: Asus ZenFone 5 Selfie 2018 Dual SIM LTE, RIM BlackBerry KEY2 LE BBE100-2 TD-LTE, Oppo R17 Premium Edition Dual SIM TD-LTE, Xiaomi Redmi 6 Pro Dual SIM TD-LTE, ZTE Nubia Z18s Premium Edition Dual SIM TD-LTE, RIM BlackBerry Motion Global Dual SIm TD-LTE, Meizu Pro 7 Dual SIM TD-LTE, Samsung SM-A750F/DS Galaxy A7 2018 Duos Global TD-LTE, Samsung SM-J400M Galaxy J4 2018 LTE, Samsung SM-A605FN Galaxy A6+ 2018 TD-LTE, etc.

# Changes in version 10.4 (August 2018):

- Oxygen Forensic<sup>®</sup> Extractor. Added the ability to import and parse all available data from <u>GrayKey</u> images made from Apple iOS devices: contacts, calls, messages, applications, passwords, deleted information, etc.
- Oxygen Forensic<sup>®</sup> Extractor. Added the ability extract available photos, databases and files from <u>locked</u> Samsung devices via MTP.
- Oxygen Forensic<sup>®</sup> Extractor. Added the ability to manually select the <u>EDL bootloader</u> for a supported Android device. Previously only automatic upload was available.
- Oxygen Forensic<sup>®</sup> Cloud Extractor. Added the ability to import WhatsApp backups made in Android devices and decrypt them in the Cloud Extractor via phone number or WhatsApp Cloud token.

- Oxygen Forensic<sup>®</sup> Cloud Extractor. Added the ability to sign to Google services with 2FA enabled by using Google Prompt.
- Oxygen Forensic<sup>®</sup> Cloud Extractor. Updated algorithm of data extraction from iCloud accounts with 2FA enabled. The new algorithm works for all iCloud services except iCloud Backup.
- Oxygen Forensic<sup>®</sup> KeyScout. Added the ability to extract <u>WiFi hotspots</u> SSID and their associated passwords.
- Web Connections. Added extraction of Bluetooth connections history from Apple iOS devices.
- Search. PhotoDNA. Added the ability to search for and find similar images throughout the selected device or case.
- Search. PhotoDNA. Improved the ability to calculate PhotoDNA hash for .HEIC files.
- Search. Improved search in Plist files for data of Array and Dictionary types.
- Export. Added the highlight of search results in PDF, RTF and HTML reports.
- File Browser. Added the ability to save hashes of selected elements to file.
- Applications. Added data parsing from over 470 new app versions from Apple iOS and Android devices. The total amount of supported versions exceeds 7800.
- Applications. Organizer. Added data parsing from SHAREit (2.8.89) from Apple iOS devices and SHAREit (4.5.18) from Android devices.
- Applications. Messengers. Updated data parsing from VIPole Private Messenger (1.9.2) from Android devices and VIPole Private Messenger (2.3.3) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from QQ International (5.0.1) from Apple iOS devices and QQ International (6.0.0) from Android devices.
- Applications. Messengers. Updated data parsing from imo (9.8.0) from Android devices and imo (7.1.60) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from imo beta free calls and text (9.8.0) from Android devices.
- Applications. Messengers. Updated data parsing from Azar (3.23.3) from Android devices and Azar (1.29.3) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Google Duo (37.1) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Kik messenger (14.0.0) from Android devices.
- Applications. Messengers. Updated data parsing from Telegram (4.8.11) from Android devices.
- Applications. Messengers. Updated data parsing from WeChat (6.6.7) from Android devices.
- Applications. Social Networks. Updated data parsing from Facebook (178.0.0) from Android devices.
- Applications. Social Networks. Updated data parsing from Instagram (56.0) from Apple iOS devices and Instagram (56.0) from Android devices.
- Applications. Social Networks. Updated data parsing from Romeo (3.0.2) from Android devices.
- Applications. Social Networks. Updated data parsing from Odnoklassniki (7.16) from Apple iOS devices and Odnoklassniki (18.7.18) from Android devices.
- Applications. Social Networks. Updated data parsing from Workplace (182.0) from Apple iOS devices.
- Applications. Fitness. Updated data parsing from Endomondo (18.6.2) from Android devices.
- Applications. Fitness. Updated data parsing from Strava (56.0.0) from Android devices.
- Applications. Web Browsers. Updated data parsing from FireFox (61.0) from Android devices.
- Applications. Web Browsers. Updated data parsing from FireFox Focus (6.0) from Android devices.
- Applications. Web Browsers. Updated data parsing from Google chrome (68.0) from Android devices.
- Applications. Web Browsers. Updated data parsing from Opera Mini (35.3) from Android devices.
- Applications. Business. Updated data parsing from Flipboard (4.1.23) from Android devices.
- Applications. Business. Updated data parsing from Yandex.Disk (2.47) from Apple iOS devices and Yandex.Disk (3.43) from Android devices.
- Applications. Business. Updated data parsing from Google Keep (2.2018.28) from Apple iOS devices.
- Applications. Business. Updated data parsing from Google Translate (5.21.0) from Android devices.
- Applications. Multimedia. Updated data parsing from Musical.ly (7.7) from Apple iOS devices.
- Applications. Multimedia. Updated data parsing from YouTube (13.29) from Apple iOS devices and YouTube (13.28.53) from Android devices.
- Applications. Navigation. Updated data parsing from Waze (4.41.2) from Apple iOS devices and Waze (4.41.1.0) from Android devices.
- General. Added support for 200+ new Android devices: Samsung SM-N960U Galaxy Note 9 TD-LTE, Samsung SM-J810G/DS Galaxy J8 2018 Duos, Samsung SM-G885S Galaxy A9 Star Duos TD-LTE, RIM BlackBerry KEY2 BBF100-9 Dual SIM, Nokia X6 2018 Global Dual SIM, Nokia X5 Dual SIM TD-LTE, Motorola Moto Z3 Play TD-LTE, LG G710VMX G7 ThinQ LTE-A, Huawei P20 Lite WiMAX 2+, Huawei Y5 Prime 2018 Dual SIM, etc.

#### Changes in version 10.3.2 (July 2018):

- Oxygen Forensic<sup>®</sup> Cloud Extractor. Updated extraction protocol for iCloud Backups made from Apple devices with iOS 11.4.1 and earlier.
- Oxygen Forensic<sup>®</sup> Cloud Extractor. Updated support for Endomondo service.
- Oxygen Forensic<sup>®</sup> Extractor. Added support for Apple iOS 11.4, iOS 11.4.1 and iOS 12 Beta.

• Oxygen Forensic<sup>®</sup> Extractor. Added data parsing from non-encrypted and encrypted iTunes backups made from Apple iOS 11.4, iOS 11.4.1 and iOS 12 Beta devices.

### Changes in version 10.3.1 (June 2018):

- Oxygen Forensic<sup>®</sup> KeyScout. Added the ability to search credentials and tokens in Opera web browser.
- Oxygen Forensic<sup>®</sup> Cloud Extractor. Added proxy support for Telegram service.
- Oxygen Forensic<sup>®</sup> Cloud Extractor. Added QQ Mail token extraction from iOS and Android devices.
- Oxygen Forensic<sup>®</sup> Cloud Extractor. Now when a forensic investigator gains access to a cloud account via login/password, a corresponding token is generated and added into Cloud Accounts section.
- File Browser. Added the ability to set a custom category for Project VIC.
- Export. Accelerated data export in PDF and XLSX file formats.
- Applications. Added data parsing from almost 300 new app versions from Apple iOS and Android devices. The total amount of supported versions exceeds 7300.
- Applications. Messengers. Added data parsing from Azar Messenger (3.30.1) from Android devices and Azar Messenger (1.28.2) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from WhatsApp (2.18.52) from Apple iOS devices and WhatsApp (2.18.156) from Android devices.
- Applications. Messengers. Updated data parsing from Viber (8.9.0) from Apple iOS devices and Viber (9.1.0) from Android devices.
- Applications. Messengers. Updated data parsing from CoverMe Messenger (2.8.5) from Android devices.
- Applications. Messengers. Updated data parsing from Wickr (4.39.1) from Android devices.
- Applications. Messengers. Updated data parsing from Telegram (4.8.9) from Android devices.
- Applications. Messengers. Updated data parsing from GroupMe (5.20.0) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Kik (13.3.0) from Apple iOS devices and Kik (13.4.0.9614) from Android devices.
- Applications. Messengers. Updated data parsing from Line (8.8.3) from Android devices.
- Applications. Messengers. Updated data parsing from WeChat (6.6.7) from Apple iOS devices and WeChat (6.6.6) from Android devices.
- Applications. Messengers. Updated data parsing from Workplace chat (170.0.0.47.87) from Android devices.
- Applications. Messengers. Updated data parsing from Google Hangouts (25.0) from Android devices.
- Applications. Messengers. Updated data parsing from Google Duo (35.1) from Apple iOS devices and Google Duo (34.5) from Android devices.
- Applications. Social Networks. Updated data parsing from Facebook (176.0.0.42.87) from Android devices.
- Applications. Social Networks. Updated data parsing from Instagram (49.0) from Apple iOS devices and Instagram (49.0) from Android devices.
- Applications. Social Networks. Updated data parsing from OK (7.11.1) from Apple iOS devices and OK (18.6.6) from Android devices.
- Applications. Social Networks. Updated data parsing from LinkedIn (4.1.186) from Android devices.
- Applications. Social Networks. Updated data parsing from Romeo (2.25.0) from Android devices.
- Applications. Social Networks. Updated data parsing from Workplace (174.0) from Apple iOS devices.
- Applications. Web Browsers. Updated data parsing from Firefox (60.0.2) from Android devices.
- Applications. Web Browsers. Updated data parsing from Google Chrome (67.0.3396.69) from Apple iOS devices and Google Chrome (67.0.3396.87) from Android devices.
- Applications. Web Browsers. Updated data parsing from Opera Mini (16.0.10) from Apple iOS devices and Opera Mini (35.0.2254.127755) from Android devices.
- Applications. Finance. Updated data parsing from Bread Wallet (263) from Android devices.
- Applications. Business. Updated data parsing from Flipboard (4.1.22) from Android devices.
- Applications. Business. Updated data parsing from Google Keep (2.2018.22103) from Apple iOS devices and Google Keep (5.0.231.08.40) from Android devices.
- Applications. Business. Updated data parsing from Google Mail (5.0.180506) from Apple iOS devices.
- Applications. Business. Updated data parsing from Google Translate (5.20.0) from Android devices.
- Applications. Business. Updated data parsing from OneDrive (10.18.6) from Apple iOS devices.
- Applications. Business. Updated data parsing from Outlook (2.82.0) from Apple iOS devices.
- Applications. Business. Updated data parsing from Yandex Disk (3.42) from Android devices.
- Applications. Business. Updated data parsing from Yandex Mail (3.6.1) from Apple iOS devices.
- Applications. Business. Updated data parsing from Yandex Money (6.4.1) from Apple iOS devices.
- Applications. Multimedia. Updated data parsing from Youtube (13.22) from Apple iOS devices and
- Applications. Multimedia. Updated data parsing from Musical.ly (7.3.1) from Apple iOS devices.
- Applications. Sport. Updated data parsing from Strava (47.0.0) from Android devices.

Youtube (13.22.54) from Android devices.

• Applications. Navigation. Updated data parsing from Waze (4.39.2) from Apple iOS devices and Waze (4.39.0.4) from Android devices.

#### Changes in version 10.3.0.100 (June 2018):

- Oxygen Forensic<sup>®</sup> Extractor. Fixed the issue that occurred when analyzing the user partition of physical dumps made from Spreadtrum and Qualcomm devices.
- Oxygen Forensic® SQLite Viewer. Improved interface scaling.

## Changes in version 10.3 (June 2018):

- Oxygen Forensic<sup>®</sup> Cloud Extractor. Added the industry-exclusive ability to extract the Samsung Secure Folder Backup. The Secure Folder allows users to keep their private data in a separate secured folder on the mobile device. Access to this secure folder can be made by fingerprint or password only. Now investigators can gain access to account details, apk file revisions, contact and calendar cards, and document revisions of the Secure Folder from the Cloud.
- Oxygen Forensic<sup>®</sup> Extractor. Added the ability to bypass screen lock and extract data from Android devices based on Qualcomm chipsets via EDL mode. The method works on 430+ Android devices of 26 manufacturers.
- Oxygen Forensic<sup>®</sup> Extractor. Added the ability to bypass screen lock and extract data from Android devices based on Spreadtrum with the memory of 4, 8 and 16Gb. The total amount of supported Spreadtrum devices exceeds 100.
- Oxygen Forensic<sup>®</sup> Cloud Extractor. Added the industry-exclusive ability to extract Viber backups from Google Cloud and iCloud via login/password or token. Investigators can now gain access to the information about the Viber account, private and group chats and media file thumbnails.
- Oxygen Forensic<sup>®</sup> Cloud Extractor. Added the Oxygen Forensic<sup>®</sup> KeyScout utility that finds credentials and tokens on a PC running Windows. Now investigators can collect all available credentials on the subject's computer and immediately utilize them in Oxygen Forensic<sup>®</sup> Cloud Extractor.
- Oxygen Forensic<sup>®</sup> Cloud Extractor. Added data extraction from QQ Mail: account information, mails with attachments and contacts.
- Oxygen Forensic<sup>®</sup> Cloud Extractor. Added the ability to acquire new data types from Google My Activity: Google Play, Newsstand, Google Play Movies & TV, Google Play Games and many others.
- Oxygen Forensic<sup>®</sup> Cloud Extractor. Added the ability to acquire new data types from Telegram. Added the ability to acquire new data types from Telegram. Now investigators can extract supergroups, authorization sessions, etc.
- Oxygen Forensic<sup>®</sup> Cloud Extractor. Added the ability to extract OneDrive data via token.
- Oxygen Forensic<sup>®</sup> Cloud Extractor. Added a new window for viewing the credentials from .ocpk files.
- Oxygen Forensic<sup>®</sup> Maps. Added the ability to export selected Map layers to a PDF report.
- Search. Added support for PhotoDNA. Now investigators can import PhotoDNA hash sets from Project VIC JSON files or from plain TXT and CSV files and search for child exploitation images in the extracted mobile and cloud data.
- Applications. Updated support for 400+ app versions for iOS and Android devices. The total amount of supported app versions exceeds 7000.
- Applications. Messengers. Added data parsing from TamTam Messenger (2.4.8) from Apple iOS devices and TamTam Messenger (1.9.0) from Android devices.
- Applications. Sport. Added data parsing from Strava (41.1.0) from Apple iOS devices and Strava (33.0) from Android devices.
- Applications. Finance. Added data parsing from Sberbank online (7.11.3) from Android devices.
- Applications. Messengers. Updated data parsing from Skype (8.16) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Google Duo (33.0) from Apple iOS devices and Google Duo (32.1) from Android devices.
- Applications. Messengers. Updated data parsing from Facebook Messenger (156.0) from Apple iOS devices and Facebook Messenger (160.0.0.28.92) from Android devices.
- Applications. Messengers. Updated data parsing from Telegram (4.8.1) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Viber (8.6.1) from Apple iOS devices and Viber (8.6.0.9) from Android devices.
- Applications. Messengers. Updated data parsing from GroupMe (5.17.1) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Kik (12.4) from Apple iOS devices and Kik (12.7.1.7291) from Android devices.
- Applications. Messengers. Updated data parsing from Line (8.4.2) from Android devices.
- Applications. Messengers. Updated data parsing from WeChat (6.6.6) from Apple iOS devices and WeChat (6.6.2) from Android devices.
- Applications. Messengers. Updated data parsing from WhatsApp (2.18.31) from Apple iOS devices and WhatsApp (2.18.92) from Android devices.
- Applications. Social Networks. Updated data parsing from Facebook (166.0.0.63.95) from Android devices.
- Applications. Social Networks. Updated data parsing from Workplace (169.0) from Apple iOS devices and Workplace (168.0.0.38.90) from Android devices.

- Applications. Social Networks. Updated data parsing from Instagram (39.0) from Apple iOS devices and Instagram (39.0) from Android devices.
- Applications. Social Networks. Updated data parsing from LinkedIn (4.1.159) from Android devices.
- Applications. Social Networks. Updated data parsing from Twitter (7.20.2) from Apple iOS devices and Twitter (7.35.0) from Android devices.
- Applications. Social Networks. Updated data parsing from VK (4.3) from Apple iOS devices and VK (5.8) from Android devices.
- Applications. Social Networks. Updated data parsing from OK (Odnoklassniki) (7.10.1) from Apple iOS devices and OK (Odnoklassniki) (18.5.14) from Android devices.
- Applications. Business. Updated data parsing from Flipboard (4.1.17) from Android devices.
- Applications. Business. Updated data parsing from Gmail (5.0.180311) from Apple iOS devices.
- Applications. Business. Updated data parsing from Google Keep (2.2018.12203) from Apple iOS devices and Google Keep (4.1.091.10.40) from Android devices.
- Applications. Business. Updated data parsing from Google Translate (5.19.0) from Apple iOS devices and Google Translate (5.17.0) from Android devices.
- Applications. Business. Updated data parsing from Yandex.Mail (3.5.9) from Apple iOS devices.
- Applications. Finance. Updated data parsing from Sberbank online (8.9.1) from Apple iOS devices.
- Applications. Finance. Updated data parsing from Bread Wallet (205) from Android devices.
- Applications. Finance. Updated data parsing from Jaxx (1.3.15) from Apple iOS devices.
- Applications. Web Browsers. Updated data parsing from Chrome (66.0.3358.158) from Android devices.
- Applications. Web Browsers. Updated data parsing from Firefox (59.0.2) from Android devices...
- Applications. Web Browsers. Updated data parsing from Opera mini (33.0.2254.125672) from Android devices.
- Applications. Multimedia. Updated data parsing from Musical.ly (6.8.2) from Apple iOS devices.
- Applications. Navigation. Updated data parsing from Waze (4.35.1) from Apple iOS devices and Waze (4.35.1.0) from Android devices.
- Applications. Sport. Updated data parsing from Endomondo (18.4.4) from Android devices.
- General. Added support for 1300+ new Android devices: Huawei Honor 10 Global Dual SIM TD-LTE 128GB COL-L29, BQ Aquaris X2 Pro LTE Dual SIM 64GB, Samsung SM-A605G/DS Galaxy A6+ 2018 Duos TD-LTE APAC (Samsung A605), Sony Xperia XZ2 TD-LTE JP 702SO (Sony PF22), Xiaomi Redmi S2 Dual SIM TD-LTE CN 64GB, OnePlus 6 Dual SIM Global TD-LTE A6000 128GB, etc.
- Oxygen Forensic<sup>®</sup> Cloud Extractor. Improved algorithm of data extraction from Telegram accounts with a huge amount of data.
- Oxygen Forensic<sup>®</sup> Cloud Extractor. Updated and improved algorithm of OneDrive data extraction.

## Changes in version 10.2.1 (April 2018):

- Oxygen Forensic<sup>®</sup> Cloud Extractor. Added the ability to enter CAPTCHA during DJI cloud extraction.
- Oxygen Forensic<sup>®</sup> Cloud Extractor. Updated algorithm of data extraction from Google Keep.
- Applications. Messengers. Improved parsing of media files from WhatsApp (2.18.92) from Android devices.
- Oxygen Forensic<sup>®</sup> Extractor. Fixed the issue that occurred while decrypting user partition of Samsung physical dumps made via custom forensic recovery with the encryption key found by Passware Kit Mobile.

### Changes in version 10.2 (April 2018):

- Oxygen Forensic<sup>®</sup> Cloud Extractor. Added the industry-exclusive access to DJI Cloud via token that is extracted and decrypted from Android and Apple iOS devices.
- Oxygen Forensic<sup>®</sup> Extractor. Added industry-first capabilities to perform a physical extraction of DJI Spark drones. Forensic experts gain direct access to drone flight logs with GPS locations and metadata.
- Oxygen Forensic<sup>®</sup> Extractor. Added the ability to import and parse flight log files created by the DJI Assistant app on Windows/Mac OS computers.
- Oxygen Forensic<sup>®</sup> Cloud Extractor. Added the ability to extract data from Endomondo account: user details, friends list, workouts history, locations and photos. Access to Endomondo account can be obtained via Endomondo or Facebook login/password or token.
- General. Added the exclusive ability to extract and decrypt the WhatsApp Cloud token from Android OS devices. With this token investigators can decrypt WhatsApp backups from Android devices as well as WhatsApp Google Drive and WhatsApp iCloud backups associated with the same phone number.
- Web Connections. Added extraction of Cell Tower connection records from Android OS devices.
- Oxygen Forensic<sup>®</sup> Maps. Added the ability to define an area on the map for visualizing geo points and building routes.
- Oxygen Forensic<sup>®</sup> Maps. Added links between waypoints and images extracted from DJI Cloud.
- Applications. Social Networks. Added data parsing from Planet Romeo (2.22.0) from Android devices.
- Applications. Multimedia. Added data parsing from Yandex. Disk (3.34) from Android devices and Yandex. Disk (2.38) from Apple iOS devices.

- Applications. Drones. Updated data parsing from DJI GO 4 (4.1.5) from Android devices and DJI GO 4 (4.1.9) from Apple iOS devices.
- Applications. Drones. Updated data parsing from DJI GO (3.1.11) from Android devices and DJI GO (3.1.15) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Skype (8.16) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Facebook Messenger (156.0) from Apple iOS devices and Facebook Messenger (159.0.0.27.93) from Android devices.
- Applications. Messengers. Updated data parsing from Google Duo (30.0) from Apple iOS devices and Google Duo (29.2) from Android devices.
- Applications. Messengers. Updated data parsing from GroupMe (5.17.1) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Kik (12.3.0) from Apple iOS devices and Kik (12.6.0.6930) from Android devices.
- Applications. Messengers. Updated data parsing from Line (8.4.1) from Android devices.
- Applications. Messengers. Updated data parsing from Viber (8.4) from Apple iOS devices and Viber (8.4.0.4) from Android devices.
- Applications. Messengers. Updated data parsing from WeChat (6.6.5) from Apple iOS devices and WeChat (6.6.2) from Android devices.
- Applications. Messengers. Updated data parsing from WhatsApp (2.18.31) from Apple iOS devices and WhatsApp (2.18.92) from Android devices.
- Applications. Messengers. Updated data parsing from Workplace chat (159.0) from Apple iOS devices and Workplace chat (159.0.0.26.93) from Android devices.
- Applications. Messengers. Updated data parsing from Telegram (4.8.1) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from Facebook (165.0.0.53.93) from Android devices.
- Applications. Social Networks. Updated data parsing from LinkedIn (4.1.152) from Android devices.
- Applications. Social Networks. Updated data parsing from Twitter (7.20) from Apple iOS devices and Twitter (7.35.0) from Android devices.
- Applications. Social Networks. Updated data parsing from VK (3.4.1) from Apple iOS devices and VK (5.3) from Android devices.
- Applications. Social Networks. Updated data parsing from Workplace (164.0) from Apple iOS devices and Workplace (165.0.0.58.93) from Android devices.
- Applications. Social Networks. Updated data parsing from Instagram (38.0) from Apple iOS devices and Instagram (38.0) from Android devices.
- Applications. Finance. Updated data parsing from Bread Wallet (205) from Android devices.
- Applications. Finance. Updated data parsing from Jaxx Blockchain Wallet (1.3.15) from Apple iOS devices.
- Applications. Finance. Updated data parsing from Yandex.Money (4.13.1) from Android devices.
- Applications. Sport. Updated data parsing from Health (11.0.2) from Apple iOS devices.
- Applications. Sport. Updated data parsing from Endomondo (17.12.1) from Android devices and Endomondo (18.3.1) from Apple iOS devices.
- Applications. Web Browsers. Updated data parsing from Chrome (65.0.3325.109) from Android devices.
- Applications. Web Browsers. Updated data parsing from Firefox (59.0.2) from Android devices.
- Applications. Web Browsers. Updated data parsing from Opera mini (33.0.2254.125672) from Android devices.
- Applications. Business. Updated data parsing from Flipboard (4.1.16) from Android devices.
- Applications. Business. Updated data parsing from Gmail (5.0.180311) from Apple iOS devices.
- Applications. Business. Updated data parsing from Google Keep (2.2018.10102) from Apple iOS devices and Google Keep (4.1.091.10.40) from Android devices.
- Applications. Business. Updated data parsing from Yandex.Mail (3.26) from Android devices.
- Applications. Business. Updated data parsing from Google Translate (5.19.0) from Apple iOS devices and Google Translate (5.17.0) from Android devices.
- Applications. Multimedia. Updated data parsing from Musical.ly (6.8.2) from Apple iOS devices.
- Applications. Multimedia. Updated data parsing from Youtube (13.11) from Apple iOS devices and Youtube (13.10.59) from Android devices.
- Applications. Navigation. Updated data parsing from Waze (4.35.1) from Apple iOS devices and Waze (4.35.1.0) from Android devices.
- Applications. Updated support for 330+ app versions for iOS and Android devices. The total amount of supported app versions exceeds 6550.
- General. Added support for 200+ new Android devices: Huawei P20 Lite Dual SIM, LG V300K V30+ TD-LTE, Nokia 6 2018 Dual SIM, Nokia 8 Sirocco Global TD-LTE, Samsung SM-G9600/DS Galaxy S9 Duos, Samsung SM-G9650/DS Galaxy S9+ Duos, Sony Xperia L2 Dual SIM TD-LTE APAC, etc.
- Oxygen Forensic<sup>®</sup> Extractor. Improved Unicode support for imported zip archives.

## Changes in version 10.1.0.100 (March 2018):

• Oxygen Forensic<sup>®</sup> Cloud Extractor. Improved the ability to access WhatsApp Cloud service and decrypt backups from WhatsApp Google Backup and WhatsApp iCloud Backup services.

#### Changes in version 10.1 (March 2018):

- Oxygen Forensic<sup>®</sup> Cloud Extractor. Added the exclusive capability to extract data from DJI cloud. Now forensic experts can acquire detailed information about the account, registered drones and the flight history directly from the DJI cloud.
- Oxygen Forensic<sup>®</sup> Cloud Extractor. Added the unique method to decrypt WhatsApp iCloud and WhatsApp Google backups via authorization token. This breakthrough method allows forensic experts to access and decrypt the suspect's Whatsapp data without utilizing a SIM card and leaves no digital traces.
- Oxygen Forensic<sup>®</sup> Cloud Extractor. Added 2FA support and authorization via token for Twitter account.
- Oxygen Forensic<sup>®</sup> Cloud Extractor. Added extraction of private messages, lists, moments, all attachments and extended profile data from Twitter account.
- Oxygen Forensic<sup>®</sup> Cloud Extractor. Added extraction of all Dropbox files revisions. This new capability allows forensic experts to track all the changes within the Dropbox account.
- Oxygen Forensic<sup>®</sup> Extractor. Added additional rooting methods for devices with Android OS up to version 6.0.
- Oxygen Forensic<sup>®</sup> Extractor. Added the ability to manually select the root exploit from the list of all the available exploits.
- Oxygen Forensic<sup>®</sup> Extractor. Added the ability to select Android backup options. Now forensic experts can do a backup of all or selected device applications and include/exclude the device memory card content.
- Oxygen Forensic<sup>®</sup> Extractor. Added significant internal and interface improvements for the OxyAgent utility used to perform logical acquisition of Android OS devices.
- Applications. Drones. Added flight logs decoding from DJI GO 4 and DJI GO applications from Apple iOS and Android devices.
- Applications. Finance. Added data parsing from BreadWallet (171) from Android devices.
- Applications. Finance. Added data parsing from Jaxx Blockchain Wallet (1.3.9) from iOS devices and Jaxx Blockchain Wallet (1.3.7) from Android devices.
- Applications. Sport. Added data parsing from Health (9.3.3) from Apple iOS devices.
- Applications. Business. Added data parsing from LetGo (1.22.3) from Apple iOS devices.
- Applications. Messengers. Added data parsing from WeChat (6.0.8.17) from Windows Phone devices.
- Applications. Messengers. Updated data parsing from Skype (8.15) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Google Duo (27.1) from Apple iOS devices and Google Duo (25.1) from Android devices.
- Applications. Messengers. Updated data parsing from Kakao Talk (7.0.5) from Apple iOS devices and Kakao Talk (7.0.5) from Android devices.
- Applications. Messengers. Updated data parsing from Kik (12.4.1.19850) from Android devices.
- Applications. Messengers. Updated data parsing from Line (8.1.0) from Apple iOS devices and Line (8.2.1) from Android devices.
- Applications. Messengers. Updated data parsing from Facebook Messenger (153.0) from Apple iOS devices and Facebook Messenger (153.0.0.17.94) from Android devices.
- Applications. Messengers. Updated data parsing from Viber (8.2.1) from Apple iOS devices and Viber (8.3.0.6) from Android devices.
- Applications. Messengers. Updated data parsing from WeChat (6.6.3) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from WhatsApp (2.18.22) from Apple iOS devices and WhatsApp (2.18.46) from Android devices.
- Applications. Messengers. Updated data parsing from Workplace chat by Facebook (153.0) from Apple iOS devices and Workplace chat by Facebook (153.0.0.17.94) from Android devices.
- Applications. Social Networks. Updated data parsing from Twitter (7.17.1) from Apple iOS devices and Twitter (7.32.0) from Android devices.
- Applications. Social Networks. Updated data parsing from Workplace (159.0) from Apple iOS devices and Workplace (158.0.0.49.95) from Android devices.
- Applications. Social Networks. Updated data parsing from VK (3.3.1) from Apple iOS devices and VK (5.2) from Android devices.
- Applications. Social Networks. Updated data parsing from Facebook (159.0.0.38.95) from Android devices.
- Applications. Social Networks. Updated data parsing from Instagram (32.0) from Apple iOS devices and Instagram (32.0) from Android devices.
- Applications. Social Networks. Updated data parsing from Kate Mobile (47) from Android devices.
- Applications. Social Networks. Updated data parsing from LinkedIn (9.1.64) from Apple iOS devices and LinkedIn (4.1.134) from Android devices.
- Applications. Finance. Updated data parsing from Yandex.Money (6.1.1) from Apple iOS devices.
- Applications. Business. Updated data parsing from Yahoo Mail (5.24.7) from Android devices.
- Applications. Business. Updated data parsing from Yandex.Mail (3.25) from Android devices and Google Keep (4.1.051.04.40) from Android devices.
- Applications. Business. Updated data parsing from Google Translate (5.17.0) from Apple iOS devices and Google Translate (5.16.0) from Android devices.

- Applications. Business. Updated data parsing from Flipboard (4.1.13) from Android devices.
- Applications. Business. Updated data parsing from Gmail (5.0.180121) from Apple iOS devices
- Applications. Business. Updated data parsing from Google Keep (2.2018.06203) from Apple iOS devices.
- Applications. Web Browsers. Updated data parsing from Firefox (58.0.2) from Android devices.
- Applications. Web Browsers. Updated data parsing from Firefox Focus (4.0.2) from Android devices.
- Applications. Web Browsers. Updated data parsing from Google Chrome (64.0.3282.137) from Android devices.
- Applications. Web Browsers. Updated data parsing from Opera Mini (16.0.8) from Apple iOS devices.
- Applications. Multimedia. Updated data parsing from Musical.ly (6.6) from Apple iOS devices.
- Applications. Multimedia. Updated data parsing from Youtube (13.05) from Apple iOS devices and Youtube (13.05.52) from Android devices.
- Applications. Updated support for 200+ app versions for iOS, Android and Windows Phone devices. The total amount of supported app versions exceeds 6200.
- Export. Added information about the source file of draft messages.
- General. Added support for 300+ new devices: HTC U11 EYEs, Huawei Honor 9 Lite, LeEco Coolpad Changer Cool S1, Lenovo Tab4 10 Plus, Meizu M6S, Motorola Moto X4 2018, Nokia 6 2018, etc.

# Changes in version 10.0.3 (January 25, 2018):

- General. Added integration with Project VIC.
- File Browser. Search. Added the ability to search child exploitation content by hash sets taken from Project VIC. The media founded suspicious will be visualized both in Project VIC section and on a separate tab in File Browser and categorized according to the Project VIC classification.
- File Browser. Added the ability to export information about extracted files to JSON format compatible with Project VIC.
- Search. Added the ability to search files by hash sets (MD5, SHA1, SHA256).
- Oxygen Forensic<sup>®</sup> Maps. Added support for geo coordinates in GPX format.
- Applications. Updated support for 150+ app versions for iOS and Android devices. The total amount of supported app versions exceeds 6000.
- Applications. Messengers. Updated support for WhatsApp (2.18.12) from Apple iOS devices and WhatsApp (2.18.9) from Android devices.
- Applications. Messengers. Updated support for Telegram (4.7.1) from Apple iOS devices and Telegram (4.7.1) from Android devices.
- Applications. Messengers. Updated support for Viber (8.1) from Apple iOS devices and Viber (8.1.0.8) for Android devices.
- Applications. Messengers. Updated support for Google Duo (25.0) from Apple iOS devices and Google Duo (24.0) from Android devices.
- Applications. Messengers. Updated support for Google Hangouts (21.0.0) from Apple iOS devices and Google Hangouts (24.0) for Android devices.
- Applications. Messengers. Updated support for GroupMe (5.15.1) from Apple iOS devices.
- Applications. Messengers. Updated support for KakaoTalk (7.0.2) from Apple iOS devices and KakaoTalk (7.0.3) from Android devices.
- Applications. Messengers. Updated support for Facebook Messenger (149.0) from Apple iOS devices and Facebook Messenger (149.0.0.22.95) from Android devices.
- Applications. Messengers. Updated support for Facebook Workchat (148.0) from Apple iOS devices.
- Applications. Messengers. Updated support for Wechat (6.6.1) from Apple iOS devices and Wechat (6.6.1) from Android devices.
- Applications. Messengers. Updated support for Kik (12.1.0) from Apple iOS devices and Kik (12.0.0.19400) from Android devices.
- Applications. Messengers. Updated support for Line (8.0.1) from Android devices.
- Applications. Social Networks. Updated support for Facebook (155.0.0.36.96) from Android devices.
- Applications. Social Networks. Updated support for Facebook Workplace (155.0) from Apple iOS devices and Facebook Workplace (155.0.0.36.96) for Android devices.
- Applications. Social Networks. Updated support for Instagram (28.0) from Apple iOS devices and Instagram (28.0) from Android devices.
- Applications. Social Networks. Updated support for Kate Mobile (46) from Android devices.
- Applications. Social Networks. Updated support for Twitter (7.15.0) from Apple iOS devices and Twitter (7.28.0) from Android devices.
- Applications. Social Networks. Updated support for LinkedIn (4.1.126) from Android devices.
- Applications. Web Browsers. Updated support for Firefox (57.0.4) from Android devices.
- Applications. Web Browsers. Updated support for Google Chrome (63.0.3239.111) from Android devices.
- Applications. Web Browsers. Updated support for Opera Mini (16.0.7) from Apple iOS devices and Opera Mini (32.0.2254.123747) for Android devices.
- Applications. Web Browsers. Updated support for Safari (10.0) from Apple iOS devices.
- Applications. Business. Updated support for Flipboard (4.1.10) from Android devices.
- Applications. Business. Updated support for Google Keep (2.2018.02101) from Apple iOS devices and Google Keep (4.1.011.06.30) from Android devices.
- Applications. Business. Updated support for Google Mail (5.0.171217) from Apple iOS devices.

- Applications. Business. Updated support for Google Translate (5.15.0) from Android devices.
- Applications. Business. Updated support for OneDrive (9.9) from Apple iOS devices.
- Applications. Multimedia. Updated support for Musical.ly (6.4.2) from Apple iOS devices.
- Applications. Multimedia. Updated support for Youtube (13.02.9) from Apple iOS devices and Youtube (13.01.53) from Android devices.
- Applications. Navigation. Updated support for Waze (4.34.1) from Apple iOS devices and Waze (4.34.1) from Android devices.

### Changes in version 10.0.2 (December 15, 2017):

- Applications. Updated support for 150+ app versions for iOS and Android devices.
- Applications. Messengers. Updated data parsing from WhatsApp (2.17.82) from Apple iOS devices and WhatsApp (2.17.436) from Android devices.
- Applications. Messengers. Updated data parsing from Viber (7.9.4.11) from Android devices and Viber (7.9.7) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Line (7.16.3) from Android devices and Line (7.16.0) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Facebook Messenger (146.0) from Apple iOS devices and Facebook Messenger (146.0.0.33.136) from Android devices.
- Applications. Messengers. Updated data parsing from Facebook Workchat (144.0) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Google Duo (23.0) from Android devices and Google Duo (24.0) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from GroupMe (5.13.2) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from KakaoTalk (6.5.6) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Kik Messenger (11.39.0) from Android devices and

Kik Messenger (11.37.0) from Apple iOS devices

- Applications. Social Networks. Updated data parsing from Facebook Workplace (151.0.0.45.205) from Android devices and Facebook Workplace (152.0) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from Facebook (152.0.0.42.136) from Android devices.
- Applications. Social Networks. Updated data parsing from Instagram (25.0) from Android devices and Instagram (25.0) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from Kate Mobile (45) from Android devices.
- Applications. Social Networks. Updated data parsing from Twitter (7.24.1) from Android devices and Twitter (7.12.1) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from VK (3.0.4) from Apple iOS devices.
- Applications. Business. Updated data parsing from Flipboard (4.1.8) from Android devices.
- Applications. Business. Updated data parsing from Google Keep (4.0.481.04.30) from Android devices and Google Keep (2.2017.48101) from Apple iOS devices.
- Applications. Business. Updated data parsing from Google Mail (5.0.171119) from Apple iOS devices.
- Applications. Business. Updated data parsing from Google Translate (5.16.0) from Apple iOS devices.
- Applications. Navigation. Updated data parsing from Waze (4.33.0.1) from Android devices and Waze (4.33) from Apple iOS devices.
- Applications. Multimedia. Updated data parsing from Musical.ly (6.3.3) from Apple iOS devices.
- Applications. Multimedia. Updated data parsing from Youtube (12.45.56) from Android devices and Youtube (12.47.16) from Apple iOS devices.
- Applications. Web Browsers. Updated data parsing from Opera Mini (28.0.2254.119213) from Android devices.
- Applications. Web Browsers. Updated data parsing from Google Chrome (63.0.3239.73) from Apple iOS devices.
- General. Added support for 135 new Android devices: HTC X2 Android One TD-LTE JP 64GB / X2-HT (HTC Ocean Life), LG V300L V30 Signature Edition TD-LTE 256GB (LG Joan), Samsung Galaxy Golden 5 Dual SIM TD-LTE (SM-W2018), Samsung Galaxy A8+ 2018 Duos TD-LTE / Galaxy A7 (SM-A730F/DS), Xiaomi Redmi 5 Dual SIM TD-LTE CN 32GB, Xiaomi Redmi 5 Plus Dual SIM TD-LTE CN 32GB, Xiaomi Redmi Y1 Lite Dual SIM TD-LTE, etc.
- Oxygen Forensic® Cloud Extractor. Fixed the authorization error in iCloud Contacts and iCloud Calendars services.

#### Changes in version 10.0.1 (November 29, 2017):

- Oxygen Forensic® Cloud Extractor. Added the ability to extract additional data from WhatsApp Cloud. Now forensic experts can acquire information about messages deleted from private and group chats, profile pictures and status messages of the account owner and contacts, original messages embedded into the reply, broadcast messages, etc.
- File Browser. Added the ability to detect video files by content regardless of file extension.
- Export. Added the ability to select a time period for data export.
- Applications. Updated support for 150+ app versions for Apple iOS and Android devices.

- Applications. Messengers. Updated data parsing from KakaoTalk (6.5.5) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Facebook Messenger (145.0.0.25.203) from Android devices and Facebook Messenger (149.0) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Google Duo (22.0) from Android devices.
- Applications. Messengers. Updated data parsing from Google Hangouts (23.0) from Android devices and Google Hangouts (20.1.0) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from GroupMe (5.13.0) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Kik Messenger (11.35.0) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Telegram (4.5) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Viber (7.9.2.10) from Android devices and Viber (7.9.5) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from WeChat (6.5.22) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from WhatsApp (2.17.80) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Facebook Workchat (145.0.0.25.203) from Android devices and Facebook Workchat (143.0) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from Facebook (151.0.0.44.205) from Android devices.
- Applications. Social networks. Updated data parsing from LinkedIn (4.1.111) from Android devices and LinkedIn (9.1.57) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from Instagram (24.0) from Android devices and Instagram (24.0) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from Kate mobile (44.1) from Android devices.
- Applications. Social Networks. Updated data parsing from Twitter (7.23.0) from Android devices and Twitter (7.12) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from VK (3.0.3) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from Facebook Workplace (150.0.0.43.138) from Android devices and Facebook Workplace (144.0) from Apple iOS devices.
- Applications. Business. Updated data parsing from Flipboard (4.1.5) from Android devices.
- Applications. Business. Updated data parsing from Google Keep (4.0.441.01.30) from Android devices and Google Keep (2.2017.44204) from Apple iOS devices.
- Applications. Business. Updated data parsing from Google Mail (5.0.171104) from Apple iOS devices.
- Applications. Business. Updated data parsing from Google Translate (5.15.0) from Apple iOS devices.
- Applications. Business. Updated data parsing from OneDrive (9.7) from Apple iOS devices.
- Applications. Multimedia. Updated data parsing from Musical.ly (6.3.2) from Apple iOS devices.
- Applications. Multimedia. Updated data parsing from Youtube (12.44.53) from Android devices and Youtube (12.45) from Apple iOS devices.
- Applications. Web Browsers. Updated data parsing from Firefox (57.0) from Android devices.
- Applications. Navigation. Updated data parsing from Waze (4.32.0.3) from Android devices.
- General. Added support for 69 Android devices: OnePlus 5T Dual SIM Global TD-LTE A5010, LG V30+TD-LTE (LG Joan) H932U, RIM BlackBerry KEYone BBB100-5 Dual SIM TD-LTE CN 64GB (TCL Mercury), Huawei Mate 10 Lite Dual SIM LTE-A RNE-L21 (Huawei Rhone), etc.

# Changes in version 10.0 (November 16, 2017):

- Oxygen Forensic<sup>®</sup> Cloud Extractor. Added the ability to extract contacts, calls, messages, calendar events and other available data saved from Xiaomi devices to Mi Cloud.
- Oxygen Forensic<sup>®</sup> Cloud Extractor. Added the ability to decrypt WhatsApp backups even if a two-step verification is enabled in the application. Forensic experts can either enter a PIN or deactivate the verification.
- Oxygen Forensic<sup>®</sup> Cloud Extractor. Added the ability to extract undelivered WhatsApp messages, unanswered calls and information about groups and contacts directly from the WhatsApp server.
- Oxygen Forensic<sup>®</sup> Cloud Extractor. Added the ability to import and parse full Samsung Cloud Backups. Forensic experts gain access to contacts, messages, calls, tasks, Wi-Fi history and files saved from Samsung devices.
- Oxygen Forensic<sup>®</sup> Cloud Extractor. Added the ability to extract live and deleted photos, videos and documents from Samsung Cloud Data.
- Oxygen Forensic<sup>®</sup> Cloud Extractor. Added data extraction from Workplace by Facebook via token.
- Oxygen Forensic<sup>®</sup> Cloud Extractor. Added the ability to extract purchase history from iTunes Store.
- Oxygen Forensic<sup>®</sup> Cloud Extractor. Added extraction of additional Dropbox information: documents from Paper category, comments, information about users who had access rights to files and documents, information about all deleted files and folders.
- Oxygen Forensic<sup>®</sup> Cloud Extractor. Added data extraction from Dropbox via token.
- Oxygen Forensic<sup>®</sup> Cloud Extractor. Added the ability to extract Telegram data saved from Android devices via token.

- Oxygen Forensic<sup>®</sup> Cloud Extractor. Added extraction of groups, their participants and posts from Facebook account.
- Oxygen Forensic<sup>®</sup> Cloud Extractor. Added 2FA support for iCloud services.
- Oxygen Forensic<sup>®</sup> Cloud Extractor. Added 2FA support for Huawei service.
- Oxygen Forensic<sup>®</sup> Cloud Extractor. Extracted data counters were added to the extraction window.
- Oxygen Forensic<sup>®</sup> Extractor. Added data parsing from DJI Matrice 600 drone.
- Oxygen Forensic<sup>®</sup> Extractor. Added the ability to bypass screen lock and perform physical extraction of the following Motorola devices: Moto XT1684, Moto XT1685 (Dual SIM), Moto XT1687 (USA), Moto XT1681 and Moto XT1683. The total number of Motorola devices supported by this method is 40+.
- Oxygen Forensic<sup>®</sup> Extractor. Added joint import of external and internal storages of DJI drones. Now you can analyze them in one view.
- Oxygen Forensic<sup>®</sup> Extractor. Added the ability to import and decrypt Huawei backups. Decryption is fully automatic and powered by Passware<sup>®</sup> technology.
- Oxygen Forensic<sup>®</sup> Extractor. Added selective data extraction from Android devices.
- Oxygen Forensic<sup>®</sup> SQLite Viewer. Added interface improvements to the SQL Editor: display of the linked table, navigation in the linked table and highlight of linked fields.
- Search. Keywords. Added Guns, Human Trafficking and Money Laundering dictionaries.
- Search. Added the ability to search typed data inside .sqlite and .plist files.
- File Browser. Added parsing of photos and videos in HEIF/HEVC format from Apple iOS 11 devices.
- Applications. Added the ability to parse unsupported cloned applications using a supported app template.
- Applications. Added support for 400+ app versions for Apple iOS and Android devices. The total number of supported applications exceeds 5500!
- Applications. Drones. Added data parsing from FreeFlight Pro (5.0.2) from Apple iOS devices and FreeFlight Pro (5.0.2) from Android devices.
- Applications. Business. Added data parsing from Bread Wallet (2.0.2) from Apple iOS devices.
- Applications. Messengers. Added data parsing from Workplace Chat (141.0) from Apple iOS devices and Workplace Chat (142.0.0.19.63) from Android devices.
- Applications. Social Networks. Added data parsing from Facebook Workplace (148.0.0.50.62) from Android devices and Facebook Workplace (148.0) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Skype (8.9) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Viber (7.9) from Apple iOS devices and Viber (7.9.0.6) from Android devices.
- Applications. Messengers. Updated data parsing from Facebook Messenger (142.0) from Apple iOS devices and Facebook Messenger (143.0.0.20.69) from Android devices.
- Applications. Messengers. Updated data parsing from Google Hangouts (22.0) from Android devices.
- Applications. Messengers. Updated data parsing from GroupMe (5.12.5) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from KakaoTalk (6.5.1) from Apple iOS devices and KakaoTalk (6.4.6) from Android devices.
- Applications. Messengers. Updated data parsing from Kik Messenger (11.33.0) from Apple iOS devices and Kik Messenger (11.38.0.18991) from Android devices.
- Applications. Messengers. Updated data parsing from Telegram (4.4) from Apple iOS devices and Telegram (4.4.2) from Android devices.
- Applications. Messengers. Updated data parsing from Wechat (6.5.21) from Apple iOS devices and Wechat (6.5.16) from Android devices.
- Applications. Messengers. Updated data parsing from WhatsApp (2.17.71) from Apple iOS devices and WhatsApp (2.17.395) from Android devices.
- Applications. Messengers. Updated data parsing from Google Duo (22.0) from Apple iOS devices and Google Duo (21.0) from Android devices.
- Applications. Social Networks. Updated data parsing from Twitter (7.21.0) from Android devices and Twitter (7.11) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from Facebook (149.0.0.40.71) from Android devices.
- Applications. Social Networks. Updated data parsing from Instagram (22.0) from Apple iOS devices and Instagram (22.0) from Android devices.
- Applications. Social Networks. Updated data parsing from Kate Mobile Lite (43.1) from Android devices.
- Applications. Social Networks. Updated data parsing from VK (3.0.2) from Apple iOS devices.
- Applications. Web Browsers. Updated data parsing from Google Chrome (62.0.3202.84) from Android devices and Google Chrome (62.0.3202.70) from Apple iOS devices.
- Applications. Web Browsers. Updated data parsing from Firefox Browser (9.3) from Apple iOS devices and Firefox Browser (56.0) from Android devices.
- Applications. Web Browsers. Updated data parsing from Firefox Focus (3.9) from Apple iOS devices.
- Applications. Business. Updated data parsing from Passbook (11.0) from Apple iOS devices.
- Applications. Business. Updated data parsing from Evernote (8.5.1) from Apple iOS devices.

- Applications. Business. Updated data parsing from Flipboard (4.1.4) from Android devices.
- Applications. Business. Updated data parsing from Google Keep (2.2017.44201) from Apple iOS devices and Google Keep (4.0.411.05.30) from Android devices.
- Applications. Business. Updated data parsing from Google Mail (5.0.171020) from Apple iOS devices.
- Applications. Business. Updated data parsing from Google Translate (5.14.0) from Apple iOS devices and Google Translate (5.14.0) from Android devices.
- Applications. Business. Updated data parsing from OneDrive (9.6.4) from Apple iOS devices.
- Applications. Business. Updated data parsing from Outlook (2.48.0) from Apple iOS devices.
- Applications. Business. Updated data parsing from Box (4.7.027) from Android devices.
- Applications. Navigation. Updated data parsing from Waze (4.32) from Apple iOS devices and Waze (4.32.0.2) from Android devices.
- Applications. Finance. Updated data parsing from Visa Qiwi Wallet (3.10.0) from Android devices and Visa Qiwi Wallet (5.21) from Apple iOS devices.
- Applications. Multimedia. Updated data parsing from Youtube (12.43) from Apple iOS devices and Youtube (12.43.52) from Android devices.
- Applications. Multimedia. Updated data parsing from Musical.ly (6.2.1) from Apple iOS devices.
- General. Added support for 250+ new Android devices: Acer Liquid Z6 Plus Dual SIM TD-LTE, Asus ZenFone 4 Dual SIM LTE-A AM ZE554KL, Bluboo D1 Dual SIM, GiONEE M7 Dual SIM TD-LTE, Huawei H1611 Ascend XT LTE, Karbonn A1 Indian Dual SIM LTE, LEAGOO P Series P1 Dual SIM, LG LK460 G Pad F2 8.0 LTE, Maze Alpha LTE-A Dual SIM, Nokia 2 Global Dual SIM TD-LTE, PiPO K785, Sony Xperia R1 Dual SIM TD-LTE, Tesla Smartphone 3.1 Lite Dual SIM, Wiko Harry Dual Sim LTE, etc.
- Added support for Apple iOS 11.1.1.

#### **Changes in version 9.6.2.100 (September 29, 2017):**

- General. Added support for 100+ Android devices: Samsung Galaxy Note 8, Sony Xperia XA1 Plus Dual SIM LTE-A, Xiaomi Mi A1 Dual SIM TD-LTE, BlackBerry KEYone Black Edition, Motorola Moto Z2 Force Edition, Nokia 8 TA-1052, etc.
- General. Added support for Apple iOS 11.0.1.
- Oxygen Forensic® Extractor. Fixed the issue with the messages parsing from Apple iOS 11 devices.
- Applications. Social Networks. Updated data parsing from Instagram (15.0) from Android devices.
- Applications. Messengers. Updated data parsing from Viber (7.5.1) from Apple iOS devices.

## Changes in version 9.6.2 (September 20, 2017):

- General. Added support for Apple iOS 11.
- General. Added support for Apple iPhone 8, Apple iPhone 8 Plus and Apple iPhone X.
- Oxygen Forensic<sup>®</sup> Cloud Extractor. Added the ability to extract iCloud backups made from Apple iOS 11 devices.
- Oxygen Forensic<sup>®</sup> Cloud Extractor. Added the ability to use a token to extract Telegram cloud data saved from Android devices.
- Applications. Added support for 60+ app versions for Apple iOS and Android devices.
- Applications. Business. Updated data parsing from Apple Notes from Apple iOS 11 devices.
- Applications. Social Networks. Updated data parsing from Instagram (15.0) from Apple iOS devices.

## Changes in version 9.6.1 (September 13, 2017):

- Oxygen Forensic<sup>®</sup> Extractor. Now data extraction from DJI Phantom 4 and DJI Inspire 2 drones is available. Forensic experts can acquire GPS locations as well as available meta-data.
- Oxygen Forensic<sup>®</sup> Maps. Added the ability to import drone log files and visualize drone locations. Currently log files from the following drones are supported: DJI Phantom 3, DJI Phantom 4, DJI Inspire 1 and DJI Inspire 2.
- Applications. Added support for 40+ new app versions for Apple iOS and Android devices.
- Applications. Multimedia. Added data parsing from drone application DJI GO 4 (4.1.9) from Apple iOS devices and DJI GO 4 (4.1.5) from Android devices.
- Applications. Multimedia. Added data parsing from drone application DJI GO (3.1.15) from Apple iOS devices and DJI GO (3.1.11) from Android devices.
- Applications. Messengers. Updated data parsing from KakaoTalk (6.4.3) from Android devices.

#### Changes in version 9.6 (September 6, 2017):

- Oxygen Forensic<sup>®</sup> Extractor. Added data extraction from drones. Now forensic experts can import DJI Phantom 3 and DJI Inspire 1 dumps and view drone GPS locations history and meta-data like speed, direction, and more in Timeline section.
- Oxygen Forensic<sup>®</sup> Extractor. Now Motorola Android dump method supports new devices: Nexus 6, X Play, E (2015) LTE, G4 Plus and Z (Force, Droid). This approach allows to bypass screen lock password, locked bootloader and installed FRP lock.
- Oxygen Forensic<sup>®</sup> Extractor. Added the ability to extract data from several Android OS devices simultaneously.

- Oxygen Forensic<sup>®</sup> Cloud Extractor. Added extraction of SMS and MMS messages saved from Google Pixel and Pixel XL devices with Android OS 7.1 to Google cloud.
- Oxygen Forensic<sup>®</sup> Extractor. Added extraction of calls saved from Android OS 7.x devices to Google cloud.
- Oxygen Forensic<sup>®</sup> Cloud Extractor. Added the ability to extract data via token from Samsung cloud, Google Bookmarks, Locations History, Mail and My Activity services.
- Oxygen Forensic<sup>®</sup> Cloud Extractor. Improved authorization process in Microsoft Live Calendars, Live Contacts, OneDrive and Google Bookmarks, Location History, Mail, My Activity services.
- Search. Keywords. Added the dictionary of drug slang words.
- Oxygen Forensic<sup>®</sup> Viewer. Added the ability to import and parse .ocb backups made in Oxygen Forensic<sup>®</sup> Cloud Extractor. Now forensic experts can open and examine cloud extractions in Oxygen Forensic<sup>®</sup> Viewer.
- Applications. Added thumbnails preview mode for drawings extracted from iCloud Notes.
- Applications. Added support for 200+ app versions for Apple iOS, Android and Windows Phone devices. The total amount of supported app versions exceeds 5000!
- Applications. Social Networks. Added data parsing from Periscope (1.11.10) from Apple iOS devices and Periscope (1.14) from Android devices.
- Applications. Business. Added data parsing from KYMS (3.1.1) from Apple iOS devices and KYMS (1.1.2) from Android devices.
- Applications, Messengers, Updated data parsing from Telegram (4.2.1) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from WhatsApp (2.17.51) from Apple iOS devices and WhatsApp (2.17.296) from Android devices.
- Applications. Messengers. Updated data parsing from Kik Messenger (1.2.0.0) from Windows Phone devices.
- Applications. Messengers. Updated data parsing from KakaoTalk (6.3.7) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Facebook Messenger (131.0.0.17.89) from Android devices and Facebook Messenger (131.0) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Google Hangouts (18.0.0) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Google Duo (15.0.16) from Android devices and Google Duo (16.0) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from GroupMe (5.12.3) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Viber (7.4.0.9) from Android devices and Viber (7.4) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from WeChat (6.5.14) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from Facebook (137.0.0.24.91) from Android devices.
- Applications. Social Networks. Updated data parsing from Instagram (10.34) from Android devices and Instagram (11.0) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from Twitter (7.5.1) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from Kate Mobile (42.1) from Android devices.
- Applications. Web Browsers. Updated data parsing from Firefox (8.2) from Apple iOS devices.
- Applications. Web Browsers. Updated data parsing from Firefox Focus (3.5) from Apple iOS devices.
- Applications. Business. Updated data parsing from Outlook (2.37.0) from Apple iOS devices.
- Applications. Business. Updated data parsing from OneDrive (9.0.1) from Apple iOS devices.
- Applications. Business. Updated data parsing from Flipboard (4.0.18) from Android devices.
- Applications. Business. Updated data parsing from Google Keep (3.4.841.03.30) from Android devices and Google Keep (1.2017.32101) from Apple iOS devices.
- Applications. Business. Updated data parsing from Google Mail (5.0.170730) from Apple iOS devices.
- Applications. Travel. Updated data parsing from Expedia (17.30) from Apple iOS devices.
- Applications. Multimedia. Updated data parsing from Musical.ly (6.0.1) from Apple iOS devices.
- Applications. Navigation. Updated data parsing from Waze (4.28) from Apple iOS devices.
- General. Added support for 150+ Android OS devices: Asus ZenFone 4 Dual SIM, Google Pixel Phone 2, HTC U11 Life, Huawei Y6 Pro 2017, LG H930 V30, Motorola Moto G5S Global, Oppo R11 FC Barcelona Limited Edition Dual SIM, Panasonic Eluga A3 Pro, Samsung SM-C710F Galaxy C7 2017 Duos, Sony Xperia XZ1 Compact, T-Mobile REVVL LTE, Xiaomi Mi 6 Mercury Silver Limited Edition Dual SIM, ZTE C501 Dual SIM, etc.

## Changes in version 9.5 (August 8, 2017):

- Oxygen Forensic<sup>®</sup> Cloud Extractor. Added extraction of account information, contacts, channels and chats from Telegram cloud.
- Oxygen Forensic<sup>®</sup> Cloud Extractor. Added extraction of notes and their attachments from iCloud via credentials or token.
- Oxygen Forensic<sup>®</sup> SQLite Viewer. Added the ability to build SQL queries on recovered records.

- Oxygen Forensic<sup>®</sup> Extractor. Added import of Xiaomi and Oppo backups. Forensic experts can parse contacts, calls, chats, passwords, apps, files and other available data from these backup types.
- Keywords Search. Added the ability to search data regardless of its input format. Now you can enter phone numbers, E-mails, IP addresses w/ or w/o brackets, dashes, etc while using keyword search.
- Export. Added the ability to modify the header and the footer of PDF and RTF reports.
- Export. Added information about the total number of pages in PDF reports.
- Oxygen Forensic<sup>®</sup> Cloud Extractor. Updated and improved support for iCloud Drive.
- Oxygen Forensic<sup>®</sup> Cloud Extractor. Updated and improved support for iCloud Applications.
- Oxygen Forensic<sup>®</sup> Cloud Extractor. Updated and improved support for iCloud Photo Stream.
- Oxygen Forensic<sup>®</sup> Cloud Extractor. Updated and improved support for WhatsApp iCloud Backup.
- Applications. Added support for 300+ new apps versions for Apple iOS, Android and Windows Phone devices.
- Applications. Multimedia. Added data parsing from Live.ly (4.13) from Apple iOS devices.
- Applications. Messengers. Added data parsing from Line (4.3.1.702) from Windows Phone devices.
- Applications. Messengers. Updated data parsing from WhatsApp (2.17.30) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Yahoo Messenger (2.8.0) from Android devices.
- Applications. Messengers. Updated data parsing from Peeks Social (6.0.14167) from Android devices.
- Applications. Messengers. Updated data parsing from Periscope (1.8.15;1.10.1) from Apple iOS devices and Periscope (1.8.5.1; 1.10) from Android devices.
- Applications. Business. Updated data parsing from Google Mail (5.0.170507) from Apple iOS devices.
- Applications. Business. Updated data parsing from Yahoo Mail (5.16.3) from Android devices.
- Applications. Business. Updated data parsing from Yandex Mail (3.16) from Android devices.
- Applications. Business. Updated data parsing from Google Keep (3.4.0724) from Android devices.
- Applications. Finance. Updated data parsing from PayPal (6.12.1) from Android devices.
- Applications. Web Browsers. Updated data parsing from UCWeb Mini (10.9.2) from Android devices.
- Applications. Multimedia. Updated data parsing from Youtube (12.23) from Apple iOS devices.
- General. Added support for 100 Android devices: LG G600KP G6+ TD-LTE (LG Diva), LG H870U G6+ TD-LTE (LG Diva), Motorola Moto E4 Dual SIM TD-LTE AU XT1769, Nokia 9 Dual SIM TD-LTE CN TA-1004, Nokia 8 TA-1012, Samsung SM-N950FD Galaxy Note 8 Duos TD-LTE (Samsung Baikal), Xiaomi Mi 6 Dual SIM TD-LTE TW, etc.

# Changes in version 9.4.2 (July 26, 2017):

- Oxygen Forensic<sup>®</sup> Extractor. Added the breakthrough ability to create physical dumps from locked Moto X Pure, Moto G 3rd gen and Moto G 5th gen Android devices. This innovative method allows to bypass screen lock password, locked bootloader and installed FRP lock and to extract critical evidence including apps data and deleted records.
- Applications. Added support for 330+ new apps versions for Apple iOS, Android and Windows Phone devices. Now forensic experts can analyze data from more than 400 unique applications and 4450+ their versions!
- Applications. Business. Added data parsing from Google Keep (3.4.762.02.30) from Android devices and Google Keep (1.2017.24102) for Apple iOS devices.
- Applications. Messengers. Added data parsing from Line (4.3.1.702) from Windows Phone devices.
- Applications. Messengers. Added data parsing from Plus Messenger (4.1.1.0) from Android devices.
- Applications. Messengers. Added data parsing from Aniways Messenger (1.8.4) from Android devices.
- Applications. Multimedia. Added data parsing from Live.ly (5.1) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from Instagram (10.30) from Apple iOS devices and Instagram (10.30) from Android devices.
- Applications. Social Networks. Updated data parsing from Facebook (132.0.0.20.85) from Android devices.
- Applications. Social Networks. Updated data parsing from VK (2.15.1) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from Kate Mobile (40.6) from Android devices.
- Applications. Messengers. Updated data parsing from WhatsApp (2.17.40) from Apple iOS devices and WhatsApp (2.17.254) from Android devices.
- Applications. Messengers. Updated data parsing from Facebook Messenger (127.0.0.18.81) from Android devices.
- Applications. Messengers. Updated data parsing from Viber (7.2) from Apple iOS devices and Viber (7.2.0.13) from Android devices.
- Applications. Messengers. Updated data parsing from Signal (4.8.1) from Android devices.
- Applications. Messengers. Updated data parsing from CoverMe (2.6.23) from Android devices.
- Applications. Messengers. Updated data parsing from Telegram (4.1.1) from Apple iOS devices and Telegram (4.1.1) from Android devices.
- Applications. Messengers. Updated data parsing from Google Duo (14.0) from Apple iOS devices and Google Duo (14.0) from Android devices.
- Applications. Messengers. Updated data parsing from Google Hangouts (17.0.0) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from GroupMe (5.12.1) from Apple iOS devices.

- Applications. Messengers. Updated data parsing from Kik Messenger (11.25.1) from Apple iOS devices and Kik Messenger (11.26.0.16889) from Android devices.
- Applications. Messengers. Updated data parsing from KakaoTalk (6.3.5) from Apple iOS devices and KakaoTalk (6.3.5) for Android devices.
- Applications. Messengers. Updated data parsing from WeChat (6.5.12) from Apple iOS devices and WeChat (6.5.8) for Android devices.
- Applications. Web Browsers. Updated data parsing from Firefox (7.5) from Apple iOS devices and Firefox (54.0.1) from Android devices.
- Applications. Web Browsers. Updated data parsing from Firefox Focus (3.3.1) from Apple iOS devices.
- Applications. Business. Updated data parsing from GMail (5.0.170618) from Apple iOS devices.
- Applications. Business. Updated data parsing from Flipboard (4.0.15) from Android devices.
- Applications. Business. Updated data parsing from Google Translate (5.11.0) from Apple iOS devices.
- Applications. Multimedia. Updated data parsing from Youtube (12.23.60) from Android devices and Youtube (12.27) for Apple iOS devices.
- Applications. Multimedia. Updated data parsing from Musical.ly (5.8.6) from Apple iOS devices.
- Applications. Navigation. Updated data parsing from Waze (4.26) from Apple iOS devices and Waze (4.26.0.3) from Android devices.
- Applications. Finance. Updated data parsing from PayPal (6.13) from Android devices.

## Changes in version 9.4.1 (June 28, 2017):

- Oxygen Forensic<sup>®</sup> SQLite Viewer. Added the ability to open multiple databases in a single Viewer and build visual SQL queries to link database tables together.
- Oxygen Forensic<sup>®</sup> Cloud Extractor. Added the ability to extract calls history from iCloud.
- Oxygen Forensic<sup>®</sup> Cloud Extractor. Added the ability to access Instagram via credentials from Facebook.
- Oxygen Forensic<sup>®</sup> Cloud Extractor. Added the ability to extract media files from WhatsApp backup from Google Drive.
- Oxygen Forensic<sup>®</sup> Cloud Extractor. Added support for 2-factor authentication for Instagram and Facebook services.
- Oxygen Forensic<sup>®</sup> Cloud Extractor. Updated support for iCloud Photos.
- Messages. Added the ability to extract message drafts from Apple iOS devices.
- Export. Now files are exported and saved with the original creation and modification dates.
- Export. Now the total number of exported entries is displayed in RTF, XLS and table view HTML reports.
- Export. Oxygen Forensic<sup>®</sup> SQLite Viewer. Added the ability to choose the font type for data export.
- Export. Updated XML export specification.
- Applications. Added support for 550+ apps versions for Apple iOS and Android devices.
- Applications. Social Networks. Added support for Musical.ly (5.8) for Apple iOS devices.
- Applications. Web browsers. Added support for Samsung Internet for Android (5.4.00-75) for Android devices.
- Applications. Web browsers. Added support for Firefox Focus (1.0) for Android devices and Firefox Focus (3.3) for Apple iOS devices.
- Applications. Messengers. Updated support for Viber (7.0.0.8) for Android devices and Viber (6.9.5) for Apple iOS devices.
- Applications. Messengers. Updated support for WhatsApp (2.17.223) for Android devices.
- Applications. Messengers. Updated support for Facebook Messenger (123.0.0.11.70) for Android devices.
- Applications. Messengers. Updated support for Kik Messenger (11.24.0.16320) for Android devices.
- Applications. Messengers. Updated support for Threema (2.10.1) for Apple iOS devices.
- Applications. Messengers. Updated support for KakaoTalk (6.2.2) for Apple iOS devices and KakaoTalk (6.2.4) for Android devices.
- Applications. Messengers. Updated support for GroupMe (5.11.0) for Apple iOS devices.
- Applications. Messengers. Updated support for Google Duo (12.0) for Android devices and Google Duo (13.0) for Apple iOS devices.
- Applications. Messengers. Updated support for WeChat (6.5.9) for Apple iOS devices.
- Applications. Social Networks. Updated support for Facebook (129.0.0.23.67) for Android devices.
- Applications. Social Networks. Updated support for VK (2.14.1) for Apple iOS devices.
- Applications. Social Networks. Updated support for Kate Mobile (40.5) for Android devices.
- Applications. Multimedia. Updated support for Youtube (12.21.57) for Android devices and Youtube (12.21.7) for Apple iOS devices.
- Applications. Web browsers. Updated support for Firefox (54.0) for Android devices.
- Applications. Web browsers. Updated support for Ninesky Browser (6.1) for Android devices.
- Applications. Business. Updated support for GMail (7.5.21) for Android devices.
- Applications. Business. Updated support for Google Translate (5.10.0) for Android devices.
- Applications. Business. Updated support for Flipboard (4.0.12) for Android devices.
- Applications. Navigation. Updated support for Waze (4.24) for Apple iOS devices and Waze (4.24.0.2) for Android devices.

• General. Added support for 100+ Android devices: Huawei Honor 9 Premium Edition Dual SIM TD-LTE (STF-AL10), Huawei P10 Plus Standard Edition Dual SIM TD-LTE JP (VKY-L29A), Motorola Moto G3 XT1541, Nokia 5 (TA-1053), Nokia 3 (TA-1032), Samsung Galaxy A7 2017 LTE-A (SM-A720S), etc.

### Changes in version 9.4 (June 7, 2017):

- Oxygen Forensic<sup>®</sup> Cloud Extractor. Added data extraction from Samsung cloud. Forensic experts can now gain access to account details, device list, contacts, calls, messages, notes and browser data saved from Samsung Galaxy devices.
- Oxygen Forensic<sup>®</sup> Cloud Extractor. Added the ability to decrypt WhatsApp backup from Google Drive without an encryption key from the device. The security code that decrypts the backup can be received via text message or phone call.
- Oxygen Forensic<sup>®</sup> Cloud Extractor. Added the ability to extract Safari history and bookmarks from iCloud via login/password or token.
- Oxygen Forensic<sup>®</sup> Extractor. Added the ability to find an encryption key for the user partition while using custom forensic recovery method and Passware Kit Mobile. The feature is available for Samsung Galaxy S5, Samsung Galaxy S6 and Samsung Galaxy Note 4 devices.
- Oxygen Forensic<sup>®</sup> Extractor. Added the ability to recover deleted app databases from unallocated space of Android physical dumps.
- Oxygen Forensic<sup>®</sup> Extractor. Added selective data reading from jailbroken Apple iOS devices.
- Oxygen Forensic<sup>®</sup> Extractor. Improved extraction of geodata from jailbroken Apple iOS devices. The data is shown in Web Connections section on Locations tab.
- Oxygen Forensic<sup>®</sup> Extractor. Improved parsing of .emlx files from jailbroken Apple iOS devices. Extracted emails are shown in Messages section.
- Event Log. Now voicemails are shown in Event Log. Previously they were shown only in Timeline.
- Export. Added the ability to export all app data to one sheet of XLS or XLSX report.
- Export. Added table of contents to the left sidebar of HTML reports.
- Export. Passwords. Added the opportunity to include fields with timestamps into a report.
- Applications. Added support for 300+ apps versions for Apple iOS and Android devices.
- Applications. Messengers. Added data parsing from Threema (3.14) from Android devices.
- Applications. Messengers. Added data parsing from GroupMe (5.9.0) from Apple iOS devices.
- Applications. Messengers. Added data parsing from Skype Lite (1.8.0) from Android devices.
- Applications. Messengers. Updated data parsing from Telegram (4.0.1) from Android devices and Telegram (4.0) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Viber (6.8.8.5) from Android devices and Viber (6.9.0) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Facebook Messenger (120.0.0.14.84) from Android devices.
- Applications. Messengers. Updated data parsing from Kik Messenger (11.22.1.16008) from Android devices and Kik Messenger (11.21.0) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Google Duo (11.1) from Android devices and Google Duo (12.0) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from WeChat (6.5.8) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from WhatsApp (2.17.190) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Hangouts (20.0.1) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Signal Private Messenger (4.6.1) from Android devices.
- Applications. Messengers. Updated data parsing from Android Messages (2.2.075) from Android devices.
- Applications. Messengers. Updated data parsing from CoverMe (2.6.18) from Android devices.
- Applications. Social Networks. Updated data parsing from Facebook (125.0.0.23.80) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from VK (2.13.1) from Apple iOS devices.
- Applications. Business. Updated data parsing from Evernote (8.2.1) from Apple iOS devices.
- Applications. Business. Updated data parsing from Google Translate (5.10.0) from Apple iOS devices.
- Applications. Web browsers. Updated data parsing from Safari (10.0) from Apple iOS devices.
- Added support for Apple iOS 10.3.2.
- Oxygen Forensic<sup>®</sup> Cloud Extractor. Fixed problem that occurred while getting access to Twitter account.

#### Changes in version 9.3.1.100 (May 23, 2017):

- Oxygen Forensic<sup>®</sup> Cloud Extractor. Updated decryption of WhatsApp backup extracted from iCloud.
- Oxygen Forensic<sup>®</sup> Cloud Extractor. Fixed problem that occurred while getting access to Instagram account.

## Changes in version 9.3.1 (May 17, 2017):

- Oxygen Forensic<sup>®</sup> Cloud Extractor. Added the ability to extract deleted contacts from Huawei Cloud.
- Oxygen Forensic<sup>®</sup> Cloud Extractor. Added the ability to extract iCloud Contacts and iCloud Calendars via token.
- Oxygen Forensic<sup>®</sup> Cloud Extractor. Added the ability to extract data from Google, Microsoft or iCloud services by entering credentials to all of them only once.
- General. Added extraction of Emergency information from Android 7.0 devices: name, address, emergency contacts and medical information.
- Export. Timeline. Added the ability to export messages in Conversations view.
- Applications. Added support for 240+ apps versions for Apple iOS, Android and Windows Phone devices.
- Applications. Messengers. Added data parsing from Android Messages (2.2) from Android devices.
- Applications. Web Browsers. Added data parsing from Firefox (7.3) from Apple iOS devices.
- Applications. Business. Added data parsing from Hide Pictures & Videos Vaulty (4.3.3) from Android devices.
- Applications. Navigation. Added data parsing from Yandex. Navigator (2.42) from Android devices.
- Applications. Messengers. Updated data parsing from WhatsApp (2.17.22) from Apple iOS devices, WhatsApp (2.17.161) from Android devices and WhatsApp (2.17.114) from Windows Phone devices.
- Applications. Messengers. Updated data parsing from Viber (6.8.3) from Apple iOS devices, Viber (6.8.5.15) from Android devices and Viber (4.5.6) from Windows Phone devices.
- Applications. Messengers. Updated data parsing from Kik Messenger (11.17.0) from Apple iOS devices, Kik Messenger (11.17.0.15362) from Android devices and Kik Messenger (1.2.0.0) from Windows Phone devices.
- Applications. Messengers. Updated data parsing from Hangouts (15.5.0) from Apple iOS devices and Hangouts (18.0.1) from Android devices.
- Applications. Messengers. Updated data parsing from Google Duo (11.0) from Apple iOS devices and Google Duo (10.1) from Android devices.
- Applications. Messengers. Updated data parsing from Facebook Messenger (116.0.0.18.70) from Android devices.
- Applications. Messengers. Updated data parsing from Skype (6.35) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Signal Private Messenger (4.5.3) from Android devices.
- Applications. Messengers. Updated data parsing from WeChat (6.5.7) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Line (7.3.0) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from Facebook (121.0.0.20.69) from Android devices.
- Applications. Social Networks. Updated data parsing from VK (2.13) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from Instagram BETA (0.4.3) from Windows Phone devices.
- Applications. Social Networks. Updated data parsing from Twitter (3.2.3.0) from Windows Phone devices.
- Applications. Social Networks. Updated data parsing from Kate Mobile Lite (40.3) from Android devices.
- Applications. Business. Updated data parsing from Google Translate (5.9.0) from Apple iOS devices and Google Translate (5.8.1) from Android devices.
- General. Added support for 100 Android devices: HTC U 11 TD-LTE, LG G6 ACG LTE-A AS993, Samsung Galaxy J3 Prime 2017 LTE (SM-J327T), Samsung Galaxy Note 7R TD-LTE (SM-N935N), Samsung Galaxy S8+ TD-LTE (SM-G950N), etc.
- Export. Improved Conversations export to HTML format.
- Oxygen Forensic<sup>®</sup> Cloud Extractor. Improved and accelerated data extraction from Facebook account.
- Oxygen Forensic<sup>®</sup> Cloud Extractor. Fixed problem that occurred while getting access to Google Mail, Google My Activity, Google Bookmarks and Google Location History services.

## Changes in version 9.3.0.68 (April 27, 2017):

• Oxygen Forensic<sup>®</sup> Cloud Extractor. Added support for Apple iOS 10.3 backup retrieval for the Apple iCloud Backup service.

#### Changes in version 9.3 (April 19, 2017):

- Oxygen Forensic<sup>®</sup> Cloud Extractor. Added the ability to extract account information, device list, messages and calls from Huawei account via login/password or token.
- Oxygen Forensic<sup>®</sup> Cloud Extractor. Added the ability to decrypt WhatApp\_backups from iCloud.
- Oxygen Forensic<sup>®</sup> Cloud Extractor. Added the ability to extract contacts, calls, messages and notes from Windows Phone cloud.
- Oxygen Forensic<sup>®</sup> Cloud Extractor. Updated and accelerated data extraction from Google My Activity service.

- Oxygen Forensic<sup>®</sup> Viewer. Added the portable version that requires no installation or activation.
- Oxygen Forensic<sup>®</sup> Extractor. Added the ability to import Apple Production iCloud images provided by Apple Inc.
- Oxygen Forensic<sup>®</sup> Extractor. Added the ability to obtain passwords and decrypt encrypted 10.3 iTunes backups.
- Notes. Added the ability to decrypt notes from Apple iOS 9.x and 10.x devices.
- Oxygen Forensic<sup>®</sup> SQLite Viewer. Added the ability to build visual SQL queries.
- WebKit Data. Now website lists from LocalStorage databases are also displayed.
- Applications. Messengers. Added data parsing from Text Free: Calling App (6.19.2) from Android devices.
- Applications. Social Networks. Added data parsing from Kate Mobile Lite (39.3) from Android devices.
- Applications. Social Networks. Updated data parsing from Kate Mobile (39.3) from Android devices.
- Applications. Social Networks. Updated data parsing from VK (2.12.1) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from WhatsApp (2.17.107) from Android devices.
- General. Added support for 100+ new Android devices: Huawei Ascend Mate 2 4G LTE, LG L Series III L90, Motorola Moto G Dual Global GSM 8GB, Samsung Galaxy S8 WiMAX 2+, Sony Xperia XZ Premium TD-LTE, Xiaomi Hongmi Note 1/Redmi Note Dual SIM, ZTE N5620 Boost Max LTE, etc.
- Added support for Apple iOS 10.3.1.

## Changes in version 9.2.2 (April 6, 2017):

- Oxygen Forensic<sup>®</sup> Cloud Extractor. Added the ability to extract files, messages, contacts, geo coordinates and other forensically important data from Instagram.
- Applications. Messengers. Added data parsing from Signal Private Messenger (4.0.1) from Android devices.
- Applications. Messengers. Added data parsing from Private Text Messaging & Calls (2.6.14) from Android devices.
- Applications. Messengers. Added data parsing from Verizon Messages (6.4.9) from Android devices.
- Applications. Messengers. Added data parsing from Google Duo (8.0) from Apple iOS devices and Google Duo (8.0.1) from Android devices.
- Applications. Messengers. Added data parsing from Text Free: Free text + Call (6.19.2) from Android devices
- Applications. Messengers. Updated data parsing from Threema (2.8.2) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from WhatsApp (2.17.11) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Viber (6.8) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Skype (6.34.1) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from VK (2.12) from Apple iOS devices.
- Export. Applications. Added filters to XLS reports.
- Oxygen Forensic<sup>®</sup> Extractor. Improved the algorithm of deleted files recovery. Processing time has been significantly minimized.
- Oxygen Forensic<sup>®</sup> Extractor. Improved physical data extraction from LG devices.
- General. Added support for 100+ new devices: Samsung Galaxy S8, Samsung Galaxy S8+, LG G6, Huawei P10, etc.
- Added support for Apple iOS 10.3.

## **Changes in version 9.2.1 (March 16, 2017):**

- Screen Lock Disabler for LG Android devices. Added the opportunity to unlock LG devices using USB modem commands.
- Export. Oxygen Forensic® SQLite Viewer. Added the ability to export both original and converted values into one report.
- Export. Timeline. Added filters to XLS reports.
- Enterprise License. Added the ability to return a borrowed license ahead of the set time.
- Applications. Messengers. Added data parsing from Wickr Me (2.6.4.1) from Android devices.
- Applications. Business. Added data parsing from Smart Voice Recorder (1.8.0) from Android devices.
- Applications. Social Networks. Updated support for VK for iPad (2.0.2) for Apple iOS devices.
- Applications. Messengers. Updated support for WhatsApp (2.17.79) for Android devices and WhatsApp (2.17.7) for Apple iOS devices.
- Applications. Messengers. Updated support for Hangouts (14.6.0) for Apple iOS devices.
- General. Added support for 100+ new Android devices: Huawei Honor Pad 8.0 TD-LTE, LG K Series K4 2017 LTE, Motorola Moto G5 Plus TD-LTE 32GB, Samsung Galaxy Tab S3 9.7 LTE-A (SM-T825N0), Sony Xperia XA1 Dual LTE-A (Sony Hinoki DS), ZTE Z795G Solar, etc.

### Changes in version 9.2 (February 21, 2017):

• WebKit Data. Added a new section which allows to examine additional evidence that contains information from visited web pages. WebKit data is saved by various web browsers and can be extracted from Apple iOS and Android devices.

- Oxygen Forensic<sup>®</sup> Cloud Extractor. Added the ability to extract notes from Google Keep.
- Oxygen Forensic<sup>®</sup> Cloud Extractor. Added the ability to extract full iCloud backups made from Apple iOS devices v. 9.0 and later.
- Oxygen Forensic<sup>®</sup> Cloud Extractor. Added the ability to acquire WI-Fi hotspots data and blocked phone numbers saved in Google cloud.
- Enterprise license. Added the ability to borrow a license remotely.
- Oxygen Forensic<sup>®</sup> Extractor. Physical. Added recovery of files from Ext3/Ext4 partitions from the file system journal.
- Oxygen Forensic<sup>®</sup> Extractor. Physical. Added the ability to create physical dumps from the devices with the latest Chinese MTK chipsets: MT6750, MT6755, MT6737 and MT6738.
- Oxygen Forensic<sup>®</sup> Extractor. Added the ability to create the complete SIM card image.
- Export. Added the ability to export data from contact card to HTML and RTF formats.
- Export. Added the ability to export messengers chats to separate files.
- Export. Added the ability to export every conversation to a separate file.
- Export. Added column filters to table view XLS reports.
- Applications. Travel. Added data parsing from Uber (3.225.3) from Apple iOS devices and Uber (4.139.5) from Android devices.
- Applications. Travel. Added data parsing from Lyft (4.15.3) from Apple iOS devices and Lyft (4.16.3) from Android devices.
- Applications. Messengers. Added data parsing from Google Allo (4.2) from Apple iOS devices and Google Allo (4.0.014\_RC09 (arm64-v8a\_xxhdpi);5.0.021\_RC15 (arm64-v8a\_xxhdpi)) from Android devices.
- General. Added support for 100+ new Android devices: Asus ZenFone 3s Max Dual SIM TD-LTE IN, Huawei Honor 8 Standard Edition TD-LTE, Oppo A57 Dual SIM TD-LTE IN, Samsung Galaxy S8 Plus TD-LTE (Samsung Dream 2), ZTE Axon 7 Mini LTE CA, etc.

## Changes in version 9.1.2 (January 26, 2017):

- Oxygen Forensic<sup>®</sup> Cloud Extractor. Added the ability to extract additional evidence from Google Chrome. Now forensic experts can acquire autocomplete data, list of opened tabs, bookmarks, credit card numbers and addresses.
- Export. Added the ability to export items selected by the expert in all program sections.
- Export. Contact card. Added the ability to export message attachments to PDF and XLS reports.
- Export. Contact card. Added the ability to preview image thumbnails in XLS reports.
- Oxygen Forensic<sup>®</sup> Extractor. Added the ability to import previously extracted SIM card images.
- Oxygen Forensic<sup>®</sup> Extractor. Improved data extraction from SIM cards.
- Applications. Business. Added data parsing from Inbox.lt (6.2.9) from Android devices.
- Applications. Business. Added data parsing from Inbox.eu (6.2.9) from Android devices...
- Applications. Business. Added data parsing from Mail.ee (6.2.9) from Android devices.
- Applications. Messengers. Updated support for Telegram (3.16.0) for Android devices.
- General. Added support for 100 new devices: Huawei Ascend P1 LTE, Nokia 6, Samsung Galaxy A5 2017 TD-LTE, Samsung Galaxy A5 2017 TD-LTE (SM-A520K), Samsung Galaxy J1 Mini Prime, Samsung, Galaxy J3 Emerge LTE, etc.
- Export. Timeline. Fixed the issue with data export from contact card.

## Changes in version 9.1.1 (December 29, 2016):

- Oxygen Forensic<sup>®</sup> Extractor. Added the ability to extract SIM card data. You can acquire actual and deleted contacts, messages, calls and other available information from any SIM card connected via card reader.
- Oxygen Forensic<sup>®</sup> Extractor. Now custom forensic recovery packages for physical acquisition of Samsung Android devices can be downloaded from the customer area.
- Web Connections. Added the ability to extract and analyze WLAN network history of Google Mobile Services from Android OS devices.
- Oxygen Forensic<sup>®</sup> Cloud Extractor. Added support for 2-factor authentication for VKontakte service.
- Oxygen Forensic<sup>®</sup> Cloud Extractor. Added the ability to download audio and video files from VKontakte service.
- Applications. Messengers. Added data parsing from Mandarin IM (1.9) from Android OS devices.
- Applications. Business. Added data parsing from HTC Mail (10.00.783771) from Android OS devices.
- Applications. Messengers. Updated data parsing from Hangouts (13.5.0) from Apple iOS devices.
- Applications. Messengers. Improved data parsing from several accounts of WeChat from Android OS devices.
- Applications. Messengers. Updated data parsing from Skype (6.30) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from Snapchat (9.43.1.0) from Apple iOS devices and Snapchat (9.45.1.0) from Android OS devices.
- Applications. Business. Updated data parsing from Inbox.lv (6.0.29) from Android OS devices.

- Added support for 130 new Android devices: BLU Diamond M, BLU Studio G HD LTE, Nokia D1C Dual SIM LTE, OnePlus 3T Dual SIM Global TD-LTE, Samsung Galaxy S7 Edge Duos TD-LTE, Verizon Ellipsis 8 HD productionXLTE, etc.
- Export. XLS report. Added Table of Contents with hyperlinks to the sections.
- Export. File Browser. Added hyperlinks to the file types in the report.
- Export. General. Improved data layout in HTML reports.
- Export. File Browser. Improved file sorting in data reports.
- Export. General. Fixed formatting for cells with dates.
- Export. File Browser. Fixed the issue with the incorrect file names in the report.
- Export. Web Connections. Fixed the issue with the header in the report.

## Changes in version 9.1 (December 15, 2016):

- Oxygen Forensic<sup>®</sup> Cloud Extractor. Added the ability to extract and decrypt the iCloud token from iCloud for Windows application installed on a user's PC. The decrypted token can be utilized to acquire data from iCloud.
- Oxygen Forensic<sup>®</sup> Cloud Extractor. Added the ability to extract photos from iCloud Photo Stream.
- Oxygen Forensic<sup>®</sup> Cloud Extractor. Added the ability to extract data from VKontakte social network.
- Oxygen Forensic<sup>®</sup> Cloud Extractor. Added support for two-factor authentication for Google services.
- Oxygen Forensic<sup>®</sup> Cloud Extractor. Significantly redesigned program interface.
- Oxygen Forensic<sup>®</sup> Extractor. Added the ability to decrypt Samsung Android OS physical images made via custom forensic recovery method if the password is known.
- Oxygen Forensic<sup>®</sup> Extractor. Accelerated data extraction from Samsung Android OS devices via custom forensic recovery method. The use of the Jet Imager technology makes physical acquisition several times faster than before.
- Oxygen Forensic<sup>®</sup> Extractor. Added the ability to import and parse TOT physical images made from LG Android OS devices.
- Oxygen Forensic<sup>®</sup> Extractor. Added the ability to import and decrypt Apple iOS 10.2 backups.
- File Browser. Added "Applications" tab that contains application files with the extensions .APK, .JAR, .ODEX, etc.
- File Browser. Added two columns "Created" and "Last accessed" that show when the file was created and last accessed.
- File Browser. Added the ability to save the file structure to a TAR archive.
- Export. Timeline. Now media file thumbnails from applications are included in the report.
- Export. File Browser. Added the ability to group files by type in the report.
- Timeline. Added display of geo coordinates extracted from iMessages.
- Applications. Messengers. Added several accounts data parsing from Wechat from Android OS devices.
- Applications. Messengers. Updated data parsing from Talkatone (5.5.5) from Android OS devices.
- Applications. Messengers. Updated data parsing from TextNow (4.34.2) from Android OS devices.
- Applications. Messengers. Updated data parsing from Viber (6.5.3) from Apple iOS devices and Viber (6.5.3.1965) from Android OS devices.
- Export. Fixed the issue with data export from Multimedia subsection.

### Changes in version 9.0.3 (December 1, 2016):

- Oxygen Forensic<sup>®</sup> Extractor. Added the ability to brute force a passcode for any Windows Phone 8 device from its physical dump. The found passcode is later displayed in the Device Information section.
- Desktop. Device Tree. Added Media section that contains Images, Audio and Video subsections. This section allows forensic experts to quickly access media files extracted from the device.
- Oxygen Forensic<sup>®</sup> Extractor. Now forensic experts can set default extraction settings in Settings.ini file.
- General. Searching is now available in various encodings in Hex Viewer.
- Device Information. Added the ability to exclude account owner passwords from a data report.
- Applications. Social Networks. Updated support for Twitter (6.66.1) for Apple iOS devices.
- Applications. Social Networks. Updated support for Vkontakte (2.10.1) for Apple iOS devices.
- Applications. Messengers. Updated support for Talkatone (5.5.5) for Android OS devices.
- Applications. Business. Updated support for Evernote (7.9.7) for Android OS devices.
- Applications. Business. Updated support for Inbox.lv (6.0.29) for Android OS devices.
- Added support for 100+ new devices: Apple iPad Pro, Acer Liquid Jade Primo LTE TW Dual SIM, Asus ZenFone 3 Laser Dual SIM Global LTE ZC551KL, Huawei Y360, Meizu M5 Dual SIM TD-LTE (M611A), etc.
- Export. Fixed the issue when the incorrect sorting was used for messages export.
- Export. Fixed the issue when the logo was not added to the first PDF page.
- Export. Fixed the issue when an XLS report did not open due to the long link which it contained.

#### Changes in version 9.0.2 (November 21, 2016):

- Oxygen Forensic Extractor. Added the ability to bypass screen lock and extract physical dump from new LG Android smartphones including G5, V10 and V20. No rooting required.
- Oxygen Forensic<sup>®</sup> Cloud Extractor. Added the ability to encrypt OCB backup.
- Oxygen Forensic® Cloud Extractor. Added extraction of information about previously deleted files from Dropbox.
- Oxygen Forensic<sup>®</sup> Cloud Extractor. Added the autocomplete feature to the Account owner screen. The autocomplete remembers several previously entered names of inspectors and owners.
- Messages. Files acquired via OxyAgent utility are marked with an icon and a hint.
- Applications. Messengers. Added support for Video Calls in WhatsApp (2.16.352) from Android OS devices and WhatsApp (2.16.17) from Apple iOS devices.
- Applications. Social Networks. Added data parsing from Plenty Of Fish (4.80) from Apple iOS devices and Plenty Of Fish (3.40.0) from Android OS devices.
- Applications. Business. Added data parsing from Inbox.lv (6.0.14) from Android OS devices.
- Applications. Messengers. Added data parsing from Talkatone (5.5.3) from Android OS devices.
- Applications. Messengers. Updated support for Facebook Messenger (97.0) for Apple iOS devices.
- Applications. Messengers. Updated support for Kik Messenger (10.17.0) for Apple iOS devices.
- Oxygen Forensic<sup>®</sup> Extractor. Added support for 200+ Android OS devices: Motorola Moto Z TD-LTE, Samsung Galaxy J7 Prime TD-LTE, Sony Mobile Xperia X Compact TD-LTE, Xiaomi Mi 5s Plus, Xiaomi Redmi 4A, LG H915 V20 LTE-A, LG V20 Pro LTE-A, LeEco Le S3 Dual SIM LTE, HTC Desire 10 Lifestyle TD-LTE, etc.
- Call Data Records. Now filters are applied to the exported data.
- Export. Added HTML report format to the "Correspondence" bookmark.
- Export. Now Device information can be added to the contact card data while building a report.
- Export. Fixed the issue that occurred on a large volume of data.

## Changes in version 9.0.1 (November 2, 2016):

- Oxygen Forensic<sup>®</sup> Cloud Extractor. Added the ability to start a new extraction without restarting the Cloud Extractor.
- Oxygen Forensic<sup>®</sup> Cloud Extractor. Date range settings are now shown in the extraction statistics window and included into the OCB backup.
- Oxygen Forensic<sup>®</sup> Cloud Extractor. Added a horizontal scrollbar to conveniently view extraction logs. Also added the ability to copy logs in the popup menu.
- Oxygen Forensic<sup>®</sup> Maps. Added the ability to change a scale of the image in the Photo Viewer.
- Export. Added events numbering in the RTF data report.
- Export. Added the ability to set a name of the expert who creates a data report.
- General. Added display of time zone offset on the sidebar and in the grid.
- General. Added the hint that shows the original time zone extracted from the database. Available in all the cells that contain time information.
- Applications. Business. Added data parsing from KeepSafe (7.10.5) from Android OS devices and KeepSafe (7.7) from Apple iOS devices.
- Applications. Business. Added data parsing from Video Locker (1.2.1) from Android OS devices.
- Applications. Messengers. Updated support for Kik Messenger (10.16.1.9927) for Android OS devices.
- Applications. Messengers. Updated support for Facebook Messenger (93.0) for Apple iOS devices.
- Applications. Social Networks. Updated support for LinkedIn (4.0.79) for Android OS devices.
- Applications. Messengers. Updated support for Viber (6.3.4) for Apple iOS devices.
- Applications. Messengers. Updated support for WeChat (6.3.28) for Apple iOS devices and WeChat (6.3.23) for Android OS devices.
- Applications. Messengers. Updated support for WhatsApp (2.16.13) for Apple iOS devices.
- ullet Oxygen Forensic $^{\hbox{\scriptsize (R)}}$  Extractor. Added support for Apple iOS 10.1.
- Oxygen Forensic<sup>®</sup> Extractor. Added support for 400+ Android OS devices: Acer Iconia Tab 10, Alcatel One Touch Pixi 4 4.0 4GB, Asus ZenPad 10 TD-LTE, BBK Vivo V3 A TD-LTE Dual SIM, Coolpad 8718 TD-LTE, HTC One S9 TD-LTE, Huawei P9 Plus TD-LTE, etc.
- Export. Fixed the issue with Emoji symbols that were displayed incorrectly in data reports.
- Export. Fixed the issue with RTF files that are larger than 512 MB.
- Export. Fixed the issue with the logo in the header that occurred when the Device information section was not included in the report.

## Changes in version 9.0 (October 11, 2016):

- Redesigned Enterprise license. Due to the completely new engine the Enterprise license has become more cost-efficient and stable. Now experts can borrow license from the server to work offline in the field. Moreover, the remote connection to the network server has been significantly improved.
- Industry-first! Oxygen Forensic<sup>®</sup> Cloud Extractor. Added the ability to extract data from Google My Activity which includes web searches, watched videos and other activity.

- Oxygen Forensic<sup>®</sup> Cloud Extractor. Added passwords extraction from Google Chrome accounts using either known credentials or token. Forensic experts can extract account details, saved passwords and visited web pages.
- Oxygen Forensic<sup>®</sup> Extractor. Added fast dump creation from Android OS devices. Technology licensed from MITRE Corporation helped to create our Android Jet-Imager module that can acquire data from Android devices at unprecedented speed, decreasing acquisition time immensely.
- Oxygen Forensic<sup>®</sup> Extractor. Added support for iPhone 7 and iPhone 7 Plus devices.
- Oxygen Forensic<sup>®</sup> Extractor. Added data parsing from non-encrypted and encrypted iTunes backups made from Apple iOS 10 devices.
- Oxygen Forensic<sup>®</sup> Extractor. Added data import and parsing from iCloud backups made from Apple iOS 10 devices.
- Oxygen Forensic<sup>®</sup> Extractor. Added logical and physical data extraction from Android 7.0 Nougat devices.
- Oxygen Forensic<sup>®</sup> Extractor. Added physical data acquisition via forensic custom recovery method from the following Samsung S6, S6 Edge, S6 Edge models: SM-G928P, SM-G928T, SM-G928R4, SM-G920F, SM-G920T, SM-G920I, SM-G920P, SM-G920R4 and SM-G920T1. This method allows the expert to bypass the mobile device screen lock to create a full physical dump from supported Samsung devices.
- Oxygen Forensic<sup>®</sup> Extractor. Added import and data parsing from physical images of Android devices with YAFFS file systems.
- Oxygen Forensic<sup>®</sup> Extractor. Added support for Android physical images with F2FS file system.
- Oxygen Forensic<sup>®</sup> Extractor. Added import and data parsing from BlackBerry 10.3 physical images.
- Oxygen Forensic<sup>®</sup> Extractor. Added the ability to extract data via ADB backup from Android 6.x devices.
- Web Connections. Locations tab. Added extraction of Frequent Locations from jailbroken Apple iOS devices.
- Device information. Added information about SIM cards that were ever used in the acquired Apple iOS device.
- General. Added support for daylight saving time in Time Zone Settings.
- General. Now you can easily select another time zone in the column header in the following sections: Phonebook, Calendar, Notes, Tasks, File Browser and Web Connections.
- Export. Key Evidence and Timeline. Added the ability to export Key Evidence and Timeline events together with files from the source sections: attachments from Messages, files from File Browser and Applications.
- Export. Added the ability to add a custom main header for HTML and RTF reports.
- Applications. Added localization for the column headers. Previously they were only in English.
- Applications. Business. Added data parsing from Apple Notes from Apple iOS 10 devices.
- Applications. Messengers. Added data parsing from QQ (5.9.7) from Android OS devices.
- Applications. Messengers. Added data parsing from Yaxim (0.8.8) from Android OS devices.
- Applications. Social Networks. Updated support for Facebook (63.0) for Apple iOS devices.
- Applications. Social Networks. Updated support for LinkedIn (9.0.33) for Apple iOS devices.
- Applications. Social Networks. Updated support for Twitter (6.61.1) for Apple iOS devices.
- Applications. Social Networks. Updated support for Instagram (9.2.1) for Apple iOS devices.
- Applications, Social Networks, Updated support for VK (4.4.2) from Android OS devices.
- Applications. Messengers. Updated support for WhatsApp (2.16.9, 2.16.10) for Apple iOS devices.
- Applications. Messengers. Updated support for Skype (7.14.0.305) for Android OS devices.
- Applications. Messengers. Updated support for Facebook Messenger (91.0.0.19.70) for Android OS devices.
- Applications. Messengers. Updated support for ooVoo (2.9.3) for Apple iOS devices and ooVoo (2.9.2) for Android OS devices.
- Added support for 350+ Android OS devices: LG K Series K8 LRA 4G LTE (RS500), Lenovo Vibe P2 Dual SIM TD-LTE (P2c72), ZTE ZMax Pro LTE, Motorola Moto E3 Dual SIM TD-LTE (XT1700), Alcatel One Touch Idol 4 LTE (OT-6055U), Samsung Galaxy Note 7 Duos TD-LTE (SM-N930FD), etc.
- Oxygen Forensic<sup>®</sup> Cloud Extractor. Updated support for Google Mail with accelerated data extraction. Mails are now extracted using multiple threads.
- Oxygen Forensic<sup>®</sup> Cloud Extractor. Updated support for Google Location History.
- Oxygen Forensic<sup>®</sup> Extractor. Improved support for encrypted Android ADB backups. Added the ability to enter a password during data extraction to decrypt data.
- Oxygen Forensic<sup>®</sup> Extractor. Significantly accelerated physical data extraction via custom forensic recovery from Samsung devices.

## Changes in version 8.5.1 (July 26, 2016):

• Applications. Added data parsing from Pokémon Go (0.29.3) from Apple iOS and Pokémon Go (0.29.3) from Android OS devices. Forensic experts can extract account details, geo coordinates and time stamps including the time when the game was last played.

#### Changes in version 8.5 (July 20, 2016):

- Oxygen Forensic<sup>®</sup> Cloud Extractor. iCloud Applications. Added the ability to separately extract applications data stored in iCloud: databases, files, settings, etc. The acquired data can be viewed both in iCloud Applications and File Browser sections.
- Oxygen Forensic<sup>®</sup> Cloud Extractor. iCloud Applications. Added data parsing from Apple Wallet. Experts can now have an access to the information about various coupons, tickets, boarding passes as well as credit and debit cards data used in Apple Pay.
- Oxygen Forensic<sup>®</sup> Cloud Extractor. Added the alternative method for iCloud Drive extraction. The Device Emulation method allows to use not only credentials but tokens for cloud data acquisition. When this method is used the account owner usually does not receive any login notifications.
- Oxygen Forensic<sup>®</sup> Extractor. Added rooting method for Android OS 4.x-5.1. devices.
- Oxygen Forensic<sup>®</sup> Extractor. Export. Added the ability to select several formats for data export at the same time.
- Web Connections. Added extraction of Bluetooth connections history from Android and Windows Phone 8 devices.
- Export. Added data export to XLSX file format.
- Export. Added the ability to choose how data will be sorted in the report.
- Export. Added the ability to save files of different types to specified folders: images to Images folder, Videos to Videos one, etc.
- Oxygen Forensic<sup>®</sup> SQLite Viewer. Added the ability to convert time stamps from UNIX Epoch Time (micro seconds) to a readable format.
- Applications. Social Networks. Updated support for Facebook (82.0.0.23.70) for Android devices.
- Applications. Messengers. Updated support for Line (6.3.1) for Apple iOS devices.
- File Browser. Added the ability to open any file by right-click in Oxygen Forensic<sup>®</sup> SQLite Viewer.
- File Browser. Now files are added to Database files tab not only by standard SQLite extension but also by their contents. It allows to show more SQLite database files on the tab.
- Added support for Apple iOS 9.3.3.
- Oxygen Forensic<sup>®</sup> Extractor. Improved parsing of EXT2/EXT4 partitions from Android OS device images.
- Device Information. Improved extraction of basic device information (IMSI/ICCID) from Android OS devices.

## Changes in version 8.4.2 (June 30, 2016):

- Export. Applications. Added the ability to export every application category to a separate XLS sheet.
- Export. Applications. Now file links are included into data reports.
- Applications. Business. Added notes extraction from default Notes application from Apple iOS 9.x devices.
- Applications. Messengers. Added parsing of WhatsApp (2.16.133) messages backup encrypted with crypt 12 algorithm in Android OS devices.
- Applications. Social Networks. Added data parsing from Facebook (8.3.7.0; 8.3.8.0; 8.3.9.0; 8.3.10.0) from Windows Phone devices.
- Applications. Messengers. Updated data parsing from WeChat (6.3.18) from Android OS devices.
- Applications. Messengers. Updated data parsing and recovery from Facebook Messenger (72.0.0.16.67) from Android OS devices and Facebook Messenger (11.0.1.0) from Windows Phone devices.
- Applications. Social Networks. Updated data parsing from Facebook (77.0.0.20.66) from Android OS devices.
- Key Evidence. Fixed issue that occurred while using object tags in Key Evidence section.
- Export. File Browser. Now data report in CSV format contains links to the saved files.
- File Browser. Now time stamps extracted from EXIF headers of video files are shown in system Date and Time format.

# Changes in version 8.4.1 (June 2, 2016):

- Oxygen Forensic<sup>®</sup> Cloud Extractor. Added the ability to acquire WhatsApp data from iCloud Drive. Forensic experts can use credentials or token extracted from a mobile device to gain access to all WhatsApp messages and their attachments in the iCloud.
- Oxygen Forensic<sup>®</sup> Cloud Extractor. Added the ability to extract email conversations from any Email server that uses IMAP protocol. Forensic experts can now extract login information for email accounts from mobile devices and utilize it to acquire additional evidence from any Email server, like AOL, Google, Yahoo, Yandex, etc.
- Oxygen Forensic<sup>®</sup> Maps. Added the ability to view geo point information on the left sidebar.
- Oxygen Forensic<sup>®</sup> Maps. Added a new Photo Viewer.

- Applications. Messengers. Added parsing of WhatsApp (2.16.16, 2.16.84) messages backup encrypted with crypt 9 and crypt 10 algorithms in Android OS devices.
- Applications. Social Networks. Updated data parsing from Kate Mobile (30.1) from Android OS devices.
- Applications. Social Networks. Updated data parsing from Snapchat (9.30) from Apple iOS devices and Snapchat (9.29.3) from Android OS devices.
- Applications. Optimized section loading and data parsing.
- Export. Added the ability to exclude icons from data reports.
- Added support for Apple Apple iOS 9.3.2 and iTunes 12.4.
- Key Evidence. Fixed issue when key evidence flags in source sections and in Key Evidence were wrongly synchronized after deleted data recovery in Applications.
- Oxygen Forensic<sup>®</sup> Maps. Fixed incorrect photo scaling on preview.

## Changes in version 8.4 (May 12, 2016):

- Oxygen Forensic<sup>®</sup> Cloud Extractor. Added the ability to extract data from iCloud Photos. Forensic experts obtain access to photos, their geo coordinates and time stamps. Extracted photos with geo coordinates can be viewed on offline Oxygen Forensic<sup>®</sup> Maps.
- Oxygen Forensic<sup>®</sup> Cloud Extractor. Added the ability to extract data from iCloud Drive. The tool extracts all available files including documents, videos and photos.
- Export. Added the ability to export conversations in Chats View from contact card to PDF report.
- Export. Added the ability to export every section to a separate file.
- Oxygen Forensic<sup>®</sup> Maps. Added the opportunity to choose the appropriate unit of measure: miles or meters.
- Oxygen Forensic<sup>®</sup> Maps. Added integration with Baidu Maps. Chinese customers can switch to Baidu Maps view in Options/Maps Provider menu.
- Oxygen Forensic<sup>®</sup> Extractor. Added advanced export settings.
- Oxygen Forensic<sup>®</sup> Extractor. Added the option that allows to enable and disable automatic search for particular device platform (OS).
- Added support for iPhone SÉ.
- Applications. Web Browsers. Added data parsing from Yandex Browser (16.2) from Apple iOS devices.
- Applications. Navigation. Updated support for Apple Maps (8.1.2, 8.3) from Apple iOS devices.
- Applications. Social Networks. Updated support for Facebook (51.0) for Apple iOS devices.
- Applications. Social Networks. Updated support for Instagram (7.20) for Apple iOS devices.
- Applications. Social Networks. Updated support for Odnoklassniki (16.5.5) for Android OS devices.
- Applications. Messengers. Updated support for Facebook Messenger (62.0) for Apple iOS devices.
- Applications. Messengers. Updated support for WhatsApp for Apple iOS devices. Added ChatSearch.sqlite parsing.
- Applications. Messengers. Updated support for Wechat (6.3.15.65) for Android OS devices.
- Applications. Messengers. Updated support for Zello for Android OS and Windows Phone devices. Added decoding of voicemails.
- Applications. Messengers. Updated support for Line (6.1.0) for Apple iOS devices.
- Applications. Messengers. Updated support for Line (6.1.0) for Android OS devices.
- Passwords. Improved keychain file parsing from Apple iOS devices.
- Applications. Performance improvements.
- Oxygen Forensic<sup>®</sup> Maps. Accelerated module loading.

# Changes in version 8.3.1 (April 12, 2016):

- Oxygen Forensic Extractor. New devices are added to Oxygen Forensic custom recovery method. Forensic experts can create physical dumps and bypass lock screen for the following models: Samsung Galaxy Note 4 LTE Exynos (SM-N910C), Samsung Galaxy Note 4 CDMA US Cellular (SM-N910R4), Samsung Galaxy Note 4 Sprint (SM-N910P), Samsung Galaxy Note 4 T-Mobile (SM-N910T), Samsung Galaxy Note 4 CDMA Verizon (SM-N910V), Samsung Galaxy Note 5 GSM Exynos (SM-N920C, SM-N920I, SM-N920G, SM-N9208), Samsung Galaxy Note 5 Sprint (SM-N920P).
- Oxygen Forensic<sup>®</sup> Maps. Added "Show all" button that zooms a map to show all the geo points.
- Oxygen Forensic<sup>®</sup> Maps. Added the ability to calculate several distances on the same map using Ctrl + click shortcut
- File Browser. Added time stamps extraction for thumbnails from Android OS devices.
- Web Connections. Added extraction of information about Wi-Fi points from Windows Phone 8 devices.
- Applications. Messengers. Added data extraction and parsing from the latest WhatsApp (2.16.1) for Apple Apple iOS devices. All user information is available for analysis, including automatically encrypted messages.
- Applications. Messengers. Added data parsing from Skype (6.15.0.1162) from Blackberry 10 devices.
- Applications. Business. Added data parsing from Yandex. Money (4.4.1) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from Telegram (3.7.0) from Android OS devices.

- Applications. Messengers. Updated data parsing from Viber (5.8.1) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from LinkedIn (9.0.9) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from Instagram (7.19.0) from Android OS devices.
- Applications. Business. Updated data parsing from C-mail (5.00.14) from Android OS devices.
- Added support for Apple Apple iOS 9.3.1.
- Device information. Improved extraction of accounts information from Apple Apple iOS devices.
- Phonebook. Event Log. Improved contacts and calls parsing from Blackberry 10 devices.
- Messages. Improved attachments extraction from sent e-mail messages from jailbroken Apple iOS devices
- Phonebook. Interface improvements. Caller groups filter is now in column header.
- Export. Fixed problem that occurred when Export settings windows was closed.
- Export. Messages. Chats view. Fixed problem when not all data was included in device data report.

## Changes in version 8.3 (March 25, 2016):

- Oxygen Forensic<sup>®</sup> Extractor. Added the ability to extract tokens and credentials from JTAG images of Windows Phone devices. Acquired logins and tokens can be used to retrieve cloud data with Oxygen Forensic<sup>®</sup> Cloud Extractor.
- Oxygen Forensic<sup>®</sup> Extractor. Added the ability to import and parse iCloud backups created from devices with Apple iOS 9.x including Apple iOS 9.3.
- Oxygen Forensic<sup>®</sup> Extractor. Added the ability to create physical dumps from memory cards of FAT32 and Ext format and extract all available data including deleted records.
- Oxygen Forensic<sup>®</sup> Maps. Added the ability to determine distance between points on the map.
- Oxygen Forensic<sup>®</sup> Maps. Added photo thumbnails visualization on the map.
- Phonebook. Added the ability to extract information about blocked phone numbers from Apple iOS devices.
- Applications. Messengers. Added data parsing from Voicemail (6.1.0.23) from Android OS devices.
- Applications. Messengers. Added data parsing from Telegram in Russian (com.wTelegramnaRusskom) (0.2a) from Android OS devices.
- Applications. Finance. Added data parsing from Yandex. Money (3.9.1) from Android OS devices.
- Applications. Messengers. Updated data parsing from Skype (6.8.0) from Apple iOS devices.
- Applications. Messengers. Updated data parsing from WhatsApp (2.12.317) from Android OS devices.
- Applications. Messengers. Updated data parsing from Line (5.11.0) from Apple iOS devices.
- Applications. Social Networks. Updated data parsing from Tumblr (5.4) from Apple iOS devices.
- Applications. Web browsers. Updated data parsing from Google Chrome (48.0.2564.104) from Android OS devices.
- Applications. Navigation. Updated data parsing from Baidu Maps (8.7.6) from Android OS devices.
- Applications. Business. Updated data parsing from C-Mail (5.00.14) from Android OS devices.
- Added support for Apple Apple iOS 9.3.

#### Changes in version 8.2 (March 1, 2016):

- Oxygen Forensic<sup>®</sup> Extractor. Added preliminary support for physical dumps creation from Android OS devices based on Spreadtrum chipset. It allows to bypass screen lock password and extract all the data including apps and deleted records.
- Oxygen Forensic<sup>®</sup> Cloud Extractor. Added the ability to extract data from Swarm (Foursquare) cloud accounts. Forensic experts can use either credentials or token to acquire account details, contact list, check-ins history, private and group messages.
- Oxygen Forensic<sup>®</sup> Cloud Extractor. Added the ability to extract Facebook data using account credentials (login/password). Previously, Cloud extraction with token was only available.
- Oxygen Forensic<sup>®</sup> Maps. Added markers that will now display the number of geo points on the map.
- Oxygen Forensic<sup>®</sup> Maps. Display of summary information on geo locations is added into the hint.
- Oxygen Forensic<sup>®</sup> Maps. Added Europe and Asia downloads to available offline maps.
- Oxygen Forensic<sup>®</sup> Call Data Expert. Added the ability to open geo coordinates contained in CDR files in Oxygen Forensic<sup>®</sup> Maps.
- Phonebook. Added the ability to export data received via Data Scout service from Contact Card.
- Phonebook. Now experts can generate report that includes only contacts with Data Scout information. Contacts without Data Scout information won't appear in the report.
- General. Added the ability to read all user's communications in the convenient Chats view in the contact card.
- Web Connections and Location Services. Added the new tab that displays the information about Wi-Fi connections from Android OS devices: SSID, password and security type.

- File Browser. Added extraction of EXIF data (geo coordinates and dates) from video files of Apple iOS devices.
- Export. Added the ability to set a password to PDF and XLS data reports. The option is located in Export settings.
- Export. Added the ability to export only items marked as Key Evidence in the program sections.
- Export. Redesigned table view HTML report.
- Applications. Social Networks. Added live data parsing from Instagram Beta (0.4.3) from Windows Phone devices.
- Applications. Social Networks. Added live data parsing from LinkedIn (1.6.0) from Windows Phone devices.
- Applications. Social Networks. Added live data parsing from Tumblr (1.0.1.9) from Windows Phone devices.
- Applications. Social Networks. Added live data parsing from Twitter (3.2.3.0) from Windows Phone devices.
- Applications. Messengers. Added live data parsing from IM+ (8.7.2) from Apple iOS devices.
- Applications. Navigation. Added live and deleted data parsing from Baidu Maps (8.7.6) from Android devices
- Applications. Added Baidu Maps Viewer that supports Baidu coordinate system BD-09.
- Applications. Messengers. Updated live and deleted data parsing from Hangouts (6.1.1) from Android devices.
- Applications. Messengers. Updated live and deleted data parsing from Kik Messenger (9.2.1) from Apple iOS devices.
- Applications. Messengers. Updated live and deleted data parsing from Viber (5.7.1) from Apple iOS devices.
- Applications. Messengers. Updated live and deleted data parsing from Kakao Talk (5.3.1) from Apple iOS devices.
- Applications. Social Networks. Updated live data parsing from Twitter (6.44) from Apple iOS devices.
- Applications. Social Networks. Updated live data parsing from Facebook (46.0) from Apple iOS devices.
- Applications. Social Networks. Updated live and deleted data parsing from Pinterest (5.9) from Apple iOS devices and Pinterest (5.9) from Android devices.
- Applications. Social Networks. Updated live and deleted data parsing from Tumblr (5.4.1) from Android devices.
- Applications. Business. Updated live data parsing from GMail (4.4.0) from Apple iOS devices.
- Applications. Messengers. Updated live and deleted data parsing from Line (5.9.5) from Apple iOS devices.
- Applications. Navigation. Updated live data parsing from Google Maps (4.15.0) from Apple iOS devices.
- Added support for 40+ new Android OS devices: Lenovo Vibe P1m (P1ma40), Lenovo Tab 2 3G (A7-30), Sony Mobile Xperia SP (C5303), Sony Mobile DoCoMo Xperia Z3 (SO-01G), etc.
- Phonebook. Fixed problem with phone numbers of the contacts that are used in WhatsApp application.
- Export. Fixed problem of Key Evidence export to XML format.

#### Changes in version 8.1 (January 28, 2016):

- Oxygen Forensic<sup>®</sup> Extractor. Added the ability to create physical dumps from Samsung Android devices using custom forensic recovery method. It allows to bypass screen lock password and extract all the data including apps and deleted records.
- General. Added the ability to retrieve additional private data from extracted phone numbers using the new Data Scout feature. Data Scout currently uses the Whooster lookup service to gather live subscriber information. Users of the Data Scout feature must have valid service and credentials from Whooster prior to activating this feature. The Whooster service will currently only be available to United States LE customers.
- Oxygen Forensic<sup>®</sup> Maps. Added the ability to download a map area and use it in offline mode. Forensic experts can download a particular continent or the whole world.
- Oxygen Forensic<sup>®</sup> Cloud Extractor. Added the ability to extract Google Photos information: photos, geo coordinates and time stamps. Extracted photos with geo coordinates can be viewed on Oxygen Forensic<sup>®</sup> Maps.
- Oxygen Forensic<sup>®</sup> Cloud Extractor. Now all cloud extractions have detailed logs.
- Oxygen Forensic<sup>®</sup> Cloud Extractor. Added extraction of notebook files from OneDrive.
- Oxygen Forensic<sup>®</sup> Cloud Extractor. Added the ability to import the key file to decrypt encrypted WhatsApp databases extracted from Google Drive.
- General. Added the ability to make snapshots of Social Graph and Links and Stats sections and add them to the device data report.
- Export. Advanced Export settings. Now all the settings are in one window where forensic experts can: select common settings or section settings, edit report name, customize main and page headers.
- Applications. Added the ability to import the key file to decrypt encrypted WhatsApp databases in Android OS devices.

- Applications. Messengers. Added live data parsing from Kik Messenger (1.2.0.0) from Windows Phone devices.
- Applications. Messengers. Added live data parsing from Zello (1.5.0.0) from Windows Phone devices.
- Applications. Messengers. Added live and deleted data parsing from IM+ (6.6.5) from Android OS devices.
- Applications. Business. Updated live and deleted data parsing from Evernote (7.5.1) from Android OS devices and Evernote (7.9.2) from Apple iOS devices.
- Applications. Social Networks. Updated live and deleted data parsing from Twitter (5.91.0) from Android OS devices.
- Applications. Social Networks. Updated live and deleted data parsing from Facebook (59.0.0.0.15.313) from Android OS devices.
- Applications. Social Networks. Updated live and deleted data parsing from Google+ (7.0.0.111900548) from Android OS devices.
- Applications. Social Networks. Updated live and deleted data parsing from VK (3.15.4) from Android OS devices.
- Applications. Multimedia. Updated live and deleted data parsing from Youtube (10.49.59) from Android OS devices.
- Applications. Messengers. Updated live and deleted data parsing from Facebook Messenger (53.0.0.17.308) from Android OS devices.
- Applications. Messengers. Updated live data parsing from Telegram (3.4.2) from Android OS devices.
- Applications. Messengers. Updated live data parsing from Xabber (1.0.30) from Android OS devices.
- Applications. Messengers. Updated live data parsing from Zello (3.12) from Android OS devices and Zello (3.14) from Apple iOS devices.
- Added support for Apple iOS 9.2.1.
- Added support for 300+ Android OS devices: BBK Vivo X6 Plus D Dual SIM TD-LTE, Hisense Sero 7 Pro (M470), NEC Terrain (NEC-NE-201A1A), Samsung Galaxy J2 (SM-J200G/DD), Samsung Galaxy S6 edge + (SM-G928C), TP-Link Neffos C5 LTE Dual SIM (TP701A), Yezz Andy 5E2I, etc.

### Changes in version 8.0.3 (December 23, 2015):

- Oxygen Forensic<sup>®</sup> Cloud Extractor. Added ability to extract data from Google Bookmarks.
- Oxygen Forensic<sup>®</sup> Cloud Extractor. Added ability to extract data from Google Chrome History.
- Oxygen Forensic<sup>®</sup> Cloud Extractor. Added ability to extract data from all Google services using a long-lived master token.
- Oxygen Forensic<sup>®</sup> Cloud Extractor. Now WhatsApp messages backup saved in Google Drive can be extracted using Google account credentials or a long-lived master token.
- Applications. Messengers. Added live and deleted data parsing from Brosix (3.4.5) from Apple iOS devices.
- Applications. Messengers. Added live and deleted data parsing from VIPole Secure Messenger (1.7.0) from Android OS devices.
- Applications. Messengers. Updated live and deleted data parsing from Facebook Messenger (50.0) from Apple iOS devices and Facebook Messenger (51.0.0.17.128) from Android devices.
- Applications. Messengers. Updated live and deleted data parsing from Telegram (3.2.2) from Apple iOS devices.
- Applications. Messengers. Updated live data parsing from Instagram (6.10.1) from Apple iOS devices.
- Applications. Messengers. Updated live and deleted data parsing from Triplt (5.3.0) from Apple iOS devices.
- Applications. Messengers. Updated live and deleted data parsing from Line (5.8.0) from Apple iOS devices.
- Applications. Messengers. Updated live and deleted data parsing from ICQ (5.8.1) from Apple iOS devices.
- Applications. Business. Updated live and deleted data parsing from GMail (5.4) from Android devices.
- Applications. Travel. Updated live data parsing from Expedia (5.1) from Apple iOS devices.
- Applications. Social Networks. Updated live and deleted data parsing from Odnoklassniki (5.3.0.451) from Apple iOS devices.
- Added support for Apple iOS 9.2.
- Added support for 150+ new mobile devices: BlackBerry PRIV (STV100-1), Gigabyte GSmart Essence 4, HTC One A9, HTC Desire 728G, Nokia Lumia 1020, Motorola Moto G 3rd Gen 2015 TD-LTE (XT1550), Oppo Neo 7, Zopo Speed 7 Dual SIM LTE (ZP951), ZTE Max+, etc.
- Applications. Fixed problem that occurred when the data was recovered from a particular application in Android OS device extracted via ADB backup method.
- Applications. Fixed data parsing error that occurred on Android OS devices extracted via ADB backup method.
- File Browser. Fixed problem when deleted files were not marked with a trash bin icon.
- Export. Fixed problem when deleted files were not marked as deleted in device data reports.

- Oxygen Forensic<sup>®</sup> Cloud Extractor. Added Facebook data extraction. Using access token forensic experts can extract user profile details, friends list, albums, timeline and messages with their attachments.
- Oxygen Forensic<sup>®</sup> Cloud Extractor. Now extraction logs are saved to OCB file.
- Oxygen Forensic<sup>®</sup> Extractor. Added data extraction via MTP protocol. Now fast extraction of files is available for all devices using MTP protocol.
- File Browser. Added thumbnails extraction from Android OS devices. Thumbnails can be viewed on Photo Thumbnails tab in the File Browser section.
- Applications. Social Networks. Added live and deleted data parsing from Kate Mobile (23.1) from Android OS devices.
- Applications. Navigation. Added live and deleted contacts parsing from TomTom GPS Navigation Traffic (1.7) from Android OS devices.
- Applications. Navigation. Added live and deleted data parsing from TomTom Russia (1.21) from Apple iOS devices.
- Applications. Messengers. Updated live and deleted data parsing from Telegram (all versions) from Android OS devices and from Telegram from Apple iOS devices.
- Added support for 200+ new Android OS devices: Asus Memo Pad 7 ME572C (K007), Intex Aqua Trend, Maxwest Astro 6, Samsung Galaxy J1 Ace Duos 4G (SM-J110F/DS), Sony Mobile Xperia Z5 Premium Dual (E6883), Toshiba Excite Go (AT7-C8), etc.

## Changes in version 8.0.1 (October 29, 2015):

- Industry first! Oxygen Forensic<sup>®</sup> Cloud Extractor. Added extraction and decryption of WhatsApp messages which are backed up and saved in Google Drive from Android OS devices.
- Oxygen Forensic<sup>®</sup> Extractor. Added logical data extraction from Android OS 6.0 devices.
- Oxygen Forensic<sup>®</sup> Extractor. Added import and data parsing from ADB backups of Android OS 6.0 devices.
- Oxygen Forensic<sup>®</sup> Extractor. Added the ability to select which sections to export to device data report.
- Export. Added the ability to set a default name for device data report.
- Added support for Apple iOS 9.1.
- Applications. Messengers. Added user data parsing from encrypted WhatsApp messages backup (2.12.317) from Android OS devices.
- Applications. Messengers. Updated live and deleted data parsing from WhatsApp (2.12.317) from Android OS devices.
- Applications. Social Networks. Added live and deleted data parsing from QQ international (5.0.10) from Android OS devices and QQ international (4.6.12) from Apple iOS devices.
- Applications. Messengers. Updated accounts data parsing from Telegram (all versions) from Android OS devices.
- Applications. Web Browsers. Updated live and deleted data parsing from CM Browser (5.1.44) from Android OS devices.
- Applications. Fixed data sorting problem.
- Timeline. Optimized applications data loading.
- Oxygen Forensic<sup>®</sup> Maps. Interface and usability improvements.
- Oxygen Forensic<sup>®</sup> Maps. Route calculation improvements.
- Export. Fixed problem when Timeline and Search data was not included in device data report.

#### Oxygen Forensic® Detective v.8.0. Initial release (October 7, 2015):

- Oxygen Forensic® Detective all-in-one mobile forensic solution for data extraction from mobile devices which includes advanced and significantly improved modules for data analysis: Oxygen Forensic® Cloud Extractor, Oxygen Forensic® Call Data Expert and Oxygen Forensic® Maps. This fully-featured product also exclusively includes the Passware Kit Mobile (this special offer ends December 31, 2015).
- Incorporates 30+ extraction methods including logical and physical live data acquisition, cloud data extraction, call data records import as well as various device backups and images parsing in a single solution.
- Supports live data acquisition from 11,000+ mobiles devices running on Apple iOS, Android OS, Windows Phone 8, Windows Mobile 5/6, RIM (Blackberry), Symbian OS, Bada OS, Chinese MTK chipset as well as feature phones. Support for brand-new iPhone 6S and 6S Plus is included.
- Ability to extract data from multiple devices simultaneously, cutting collection times in half.
- Ability to disable screen lock on LG Android OS devices is built-in.
- Ability to bypass passcode on Apple iOS devices is built-in.
- Locates passwords to encrypted iTunes and Android backups and Android images.
- Offers advanced Oxygen Forensic® Cloud Extractor built-in utility to acquire data from cloud storage services: Apple (iCloud Contacts and Calendar), Google (Location history, Drive, Contacts, Calendars,

Mail, Tasks), Microsoft (Contacts, Calendar), Dropbox and Box as well as social media, like Instagram and Twitter. Extracted credentials and tokens can be used to access the cloud account.

- Offers Oxygen Forensic® Maps built-in utility to work with geo data. Includes the ability to find frequently visited places, build routes from user's data and determine common locations of device owners across multiple device images.
- Offers Oxygen Forensic® Call Data Expert built-in utility to import call data records (also known as CDR files) from any wireless provider and analyze connections between callers visually.
- Acquires the complete evidence set from mobile devices and backups: contacts, messages, calls, calendars, complete file system, geo data, Wi-Fi connections history and much more.
- Market leader in the number of supported unique 3rd party applications. Parses user data from 300+ unique applications and 1000+ app versions including social networks, messengers, navigation, web browsers, productivity, banking, fitness, and others analyzing contacts, shared files and communications.
- Automatically recovers deleted contacts, messages, calls, images, videos as well as data from all supported applications.
- Extracts geo-location data from all possible sources: images, hundreds of popular applications, Wi-Fi and Cell Tower connections.
- Offers built-in analytics of extracted data:
  - Timeline. Uncover the usage pattern of the mobile device revealing locations and communications before, during and after an incident.
  - Social Graph. Finds evidence and reveals all social connections between a single device or multiple devices in just few clicks.
  - Links & Stats. Offers a quick option to view the user's communication patterns and assist in determining most frequently contacted.
  - Aggregated contacts. Gains instant access to all contact's compiled information, showing every reference to every contact throughout the device.
  - Key Evidence. Allows the expert to bookmark important evidence to either later review in the Key Evidence Section or create a report of bookmarked items only.
- Supports cross-device and cross-case customizable search engine and watch lists to reveal phone numbers, e-mails, geo coordinates, credit card numbers, hash values, IP or MAC addresses. Search runs as a standalone process, saves all results and offers printing and preparing reports for any number of searches.
- Offers advanced built-in SQLite Viewer the market-leading tool to automatically recover deleted data from any SQLite database.
- Offers built-in Plist Viewer for native Apple devices.
- Builds and prints reports using the most popular file formats (XLS, RTF, PDF, XML, CSV, TSV, etc.). Export engine is a stand-alone 64-bit utility that allows to export extracted records faster and browse acquired data while waiting for the device data report.
- Offers free Oxygen Forensic® Viewer to share extracted data with authorized personnel.
- Oxygen Forensic® Detective is available in two licenses:
  - Single license is delivered by express mail service, does not require online activation, valid for one customer only and can be installed on unlimited number of PC's, but the program requires USB dongle to be inserted into USB port.
  - Enterprise license is delivered by express mail service, does not require online activation and can be used by several examiners in a local network or all over the world. The program requires only one USB dongle plugged into the server and all network computers connect to it transparently. Enterprise license is limited only for the number of computers running Oxygen Forensic® software simultaneously.