MD-Series Product Overview

Total mobile and digital forensic product series for physical rework, data extraction and analysis with integrated cutting-edge forensic technology, supporting various digital devices and data storages

Mobile Forensic software

MD-LIVE
Data scanning, extraction and analysis software for triage and on-site investigation of smartphone and digital devices

MD-NEXT
Data extraction software for smartphone, feature phone, drone, smart TV, wearable, IoT device, USIM card, SD memory card, JTAG and Chip-off memory

MD-RED
Data analysis software for Recovery, Decoding, Deserialization, Decryption, Visualization and Reporting of evidence data from mobile and digital devices

MD-CLOUD
Cloud forensic software for extraction and analysis of cloud data

Digital Forensic software

MD-VIDEO AI
Video forensic software for replay, recovery, analytics, frame enhancement and reporting of video evidence data from CCTV, DVR/NVR, IP Camera, and various devices.

MD-DRONE
Drone forensic software that extracts and analyzes various type of drone device data

Mobile Forensic hardware

MD-BOX
Digital forensic hardware for extracting data directly from the board using JTAG interface

MD-READER
Digital forensic hardware for extracting data from Chip-off memory

MD-MR
Package of digital forensic hardware devices to detach flash memory from the mainboard of mobile phone or other digital device

Mobile Forensic Packages

MD-RUGGED
Mobile forensic rugged package of MD-NEXT/MD-RED for the frontline investigator

MD-RUGGED for Drone
Drone forensic rugged package of MD-DRONE for the frontline investigator

MD-PORTABLE
Mobile forensic portable package with MD-LIVE for the first responder or triage at the crime scene

MD-ACADEMY
Complete set of mobile forensic tools customized for education and training

MD-LIVE

Mobile forensic software for on-the-spot investigation of mobile device which quickly performs scanning, extraction, analysis, and reporting.
It supports the scanning of device information for triage, selective data acquisition preventing privacy infringement, the smartphone display mirror and capture or recording as an evidence and forensic process recording by external camera or program recording as compliance audit.

System Requirements

OS : Windows 8/10/11 (64 bit)
CPU : i5 or faster
RAM : 8GB or above
SSD : 512GB or more
Display : 1024x768 or higher
USB : 2 or more USB 2.0/3.0/3.1 ports

Product components

MD-LIVE Installation Software (HDD/USB Memory/Online)
USB Dongle Key 1 EA
Warranty 1 Year

Hardware Package Option (MD-PORTABLE)

Rugged case
Laptop or tablet
Portable printer
Cable sets
HDMI Capture board
MD-CAMERA (External HD Camera)

- For taking photo of the evidence and its display or recording the investigation procedure
- Hardware auto-focusing
- Anti-reflection pad

Product Highlights

- *Mobile forensic software for on-the-spot investigation and triage*
- *Best fit forensic tool for collecting data from witnesses' or victims' smartphones*
- *Selective acquisition of evidence data without privacy infringement*
- *Scanning of device information, installed apps and files list*
- *Targeted investigation by keyword, watchlist and hash set comparison*
- *Project VIC/CAID/PhotoDNA support*
- *Live monitoring of usage logs and active process on the phone*
- *Mirroring, capturing, and recording of smartphone display*
- *Recording of investigation procedure by external camera for chain of custody*
- *Screen recording of program and external camera recording of forensic process*
- *Advanced Android live extraction with app downgrade*
- *Simple and convenient usage with intuitive user interface*
- *Minimized work time with automated steps and optimized analysis engine*

Specification

Extraction support

- Android support (~ Latest Android)
  - Samsung manufacturer backup (Smart Switch)
  - LG manufacturer's backup (Bridge)
  - Huawei Manufacturer Backup (HiSuite)
  - Agent app extraction
  - App downgrade and restore downgraded apps
  - Selective file extraction
  - Multi-space notification
- iOS support (~ Latest iOS)
  - All devices and versions that support iTunes backup
  - Decryption of iOS backup file using backup password

Extraction features

- Automatic recognition of smartphone model
- Detail information view for installed apps
- Various filtering option for installed apps
- Extraction guides and notifications per OS type
- Display of extraction progress by app
- 10 hash algorithms such as MD5, SHA-1, and SHA-256 to ensure evidence integrity
- Selective extraction by apps or by time period
- Flexible mode for Scan, Extraction and Analysis according to on-site use cases
- Notification of the battery level at the device before extraction

Analysis support

- App analysis
  - Over 2,200 Android and iPhone smartphone apps
  - Messenger data decryption - WeChat, KakaoTalk, Signal, Facebook Messenger, Wickr, Discord and etc.
  - Multi-account app analysis - WeChat, Telegram, Instagram, Facebook Messenger and etc.
  - Various DB format analysis - SQLite, Realm, Bolt, ESE and etc.
- Various file system analysis
  - EXT2/3/4, HFS+, APFS, NTFS, FAT16/32, F2FS, VDFS, RSFS and etc.
- Signature-based multimedia analysis
  - RIFF, ZIP, JPG, GIF, SIS, PNG, BMP, BGR, MP4, MKV, MPEG, TS, WEBN, FLV, SSF, DAV, ZAV, WMV, CAF, MMF, EVRC, AAC, ASUD, OGG, FLAC, HWP, WORD, EXCEL, RTF, XML, VCARD, SQLITE3, REALM, BOLT, ESE, 7-ZIP, ALZip, LZH, RAR, Win EXE, Shell Script, Dalvik

Analysis result view

- Customized filters by analysis result types
- Ability to view selected items or search results
- Messenger data visualization
  - Message dialogue view for chat room per group or contact
- GPS geolocation visualization
  - Geolocation information on the map supported by online or offline
  - Offline maps of over 70 countries
- Keyword list search by import of external file(*.xlsx,*.csv,*.txt,*.keyword) or manual input

- Hash set search by import of external file(*.json, *.xlsx) or manual input
- Support for Project VIC
  - Version 1.3, Version 2.0, PhotoDNA
- Support for CAID
- Internal viewers for documents, text, image, audio, and video
- Browser for Internet browsing history view

Recording investigation features
- Photographing, video/audio recording of evidence and investigation process by MD-CAMERA (External HD Camera) or HDMI capture board supplied as option items
- Mirrored phone screen can be captured and recorded without direct control of Android phones and by remote control in MD-LIVE
- Video/audio recording of MD-LIVE program screen to reproduce or to verify its forensic process

Chat Scanner
- Text extraction by OCR from chatroom screenshots of major messengers
- Analyze extracted Chatroom Screen Shot and convert the image to text in format.
- Analyze Recording investigation image and convert the image to text in format.
- Support Messenger Apps: WhatsApp and Telegram
- Researching other messenger apps: Kakao Talk, Signal, WeChat, Facebook Messenger, etc.
- Easy searching, ordering and editing by Investigator.

System investigation features
- Log analysis to track the recent history of user's app usage and system history
- Monitoring active phone process for malware or specific active app investigation

Case management
- Case creation, saving and opening
- Extraction image file .mdf can be analyzed in MD-RED

Reporting
- Report types
  - Analysis results summary - summarized result
  - Analysis results report - detail result
  - Electrically stored information - extracted files list
- Report options
  - Anonymized reports to protect the witness or the victim by hiding owner information
  - Large image reporting to display one image on each page not to scales down
- Archive report file as MDF/ZIP/TAR/DD
- Report file format - PDF, Excel
- HASH algorithms options - MD5, SHA1/224/256/384/512, RIPEMD128/160/256/320

Utility
- Program detail log viewer and exporting as files
- Support Screenshot feature for fast investigation

MD-NEXT

Data extraction software for Smartphone, Feature phone, Drone, Smart TV, Wearable, IoT device, USIM card, SD memory card, JTAG board and Chip-off memory

MD-NEXT is the forensic software for the data extraction of diverse mobile and digital device. It supports physical and logical extraction methods for Android, iOS, Windows OS, Tizen OS, Kai OS, Bada OS and other mobile OS.
MD-NEXT supports data extraction using MD-PLUG(FFS, Unlock for v2.0 or later versions), MD-READER(Chip-off memory), MD-BOX(JTAG board), SIM reader, SD memory reader, physical extraction via USB port, OS backup protocol, manufacturers backup protocol, agent app, app downgrade, OS backup files, cloud service, network access and new cutting-edge extraction methods.

System Requirements

OS : Windows 10/11 (64 bit)
CPU : i7 or faster
RAM : 16GB or above
Disk : 1TB or above
Display : 1024x768 or higher
USB : 2 or more USB 2.0/3.0/3.1 ports

Product components

MD-NEXT Installation Software (USB/Online)
USB Dongle Key 1 EA
MD-PLUG 1EA (Exclusively compatible with v2.0 or later versions)
Warranty 1 Year

Product Highlights

- *Data extraction from Smartphone, Feature phone, IoT device, Smart TV, Drone, Chip-off memory and JTAG board*
- *15,000 phone models' support*
- *Powerful extraction tool for Asian manufacturer (Samsung/LG/Chinese brands)*
- *Android Physical extraction - Bootloader, Bootloader AnyLock Bypass, Bootloader Pro, Fastboot, MEDIATEK, QEDL, Custom image, ADB Pro T1/T2/T3/T4/T5, DL, JTAG, Chip-off, SD Card, USIM*
- *Windows Mobile Physical extraction - Bootloader for Windows 8.1/10*
- *Full filesystem extraction - Samsung Android 10/11/12 FBE Full filesystem, Huawei EMUI 9/10/11 FBE Full filesystem, iOS FFS(Checkra1n, Checkm8, Extraction Agent Install), MediaTek FFS, Exynos FFS, Qualcomm FFS*
- *Logical extraction - ADB backup, Android App Downgrade, Manufacturer backup protocol, Local backup, MTP, iOS Backup*
- *Unlock of latest Xiaomi Redmi Series*
- *iOS backup file decryption and keychain extraction*
- *Android KNOX decryption and Encrypted SD Card decryption*
- *Selective extraction of partition, file, category, and app*

- *MD-PLUG based new extraction methods*
  Mobile forensics accessory hardware for advanced extraction methods or unlocking features
  - *Supports secure communication and data transfer between MD-NEXT and target device*
  - *Supports Screen Unlock by Bruteforce attack*
  - *Provides stable and unified connection environment between target device with MD-NEXT*
  - *One USB port for target device and one USB port for MD-NEXT installed PC*
  - *Used for new advanced FFS, new physical extraction and new screen unlocking features from v2.0 or later versions*

Specification

Perfect data extraction tool for diverse mobiles and digital devices

- Supports more than 15,000 models of
  - Global smartphone manufactures (Samsung/Apple/LG/Nokia/Microsoft/Google and etc.)
  - Chinese manufacturers (Huawei/Xiaomi/Oppo/Vivo and etc.)
- Supports extraction of IoT device, Smart Watch, AI Speaker, Smart TV, IP Camera, Drone and Car dashcam
- Drone extraction - DJI (Phantom, Maverik series), Parrot, PixHawk
- AI Speaker extraction - Amazon Echo, Google Home, Kakao Mini, Naver Clove
- Smart TV extraction - Samsung, LG, Android TV, Apple TV

Android extraction features

- Samsung
  - Qualcomm Full filesystem extraction with MD-PLUG
    - Models
      - SM8550 Snapdragon 8 Gen 2: Galaxy Z Flip 5 Series
      - SM8475 Snapdragon 8+ Gen 1: Galaxy Z Fold/Flip 4 series,
      - SM8450 Snapdragon 8 Gen 2: Galaxy S23 Series, Z Fold 5 Series
      - SM8350 Snapdragon 888 5G: Galaxy Z Fold/Flip 3 Series
    - OS – Android ~13

  - Qualcomm Full filesystem extraction
    - Models
      - SM8450 Snapdragon 8 Gen 1: Galaxy S22 Series
    - Build number of the second digit from the end is A~C
    -
  - MediaTek Full filesystem extraction with MD-Plug (8 models)
    - Models
      - MT6769: Galaxy A32 5G, F22, A22
      - MT6833: Galaxy A13
      - MT6853: Galaxy A32
      - MT6877: Galaxy Quantum 3
    - OS – Android ~13
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  - Exynos Full filesystem extraction with MD-PLUG (111 models)
    - Models
      - Exynos 2100: Galaxy S21 Series

        - Exynos 990: Galaxy S20 Series, Galaxy Note20 Series
        - Exynos 1280: Galaxy A53 Series
        - Exynos 980: Galaxy A Quantum
        - Exynos 9820: Galaxy S10 Series
        - Exynos 9825: Galaxy Note10 Series
        - Exynos 9610: Galaxy A50 Series
        - Exynos 7904: Galaxy A40/A30 Series
        - Exynos 7884: Galaxy A20 Series
      - OS – Android ~13

- Exynos Full filesystem extraction
  - Models
    - Exynos 2100: Galaxy S21 Series
    - Exynos 990: Galaxy S20 Series, Galaxy Note 20 Series
    - Exynos 9820: Galaxy S10 Series
    - Exynos 9825: Galaxy Note10 Series
    - Exynos 7884,7904,9610: Galaxy A50, A40 series
  - OS - Android 9~12
  - Secure folder, Encrypted SD card, Knox / OEM Lock bypass
  - BFU extraction when Screen lock password is unknown
- Exynos Physical extraction
  - Models
    - Exynos 9810: Galaxy S9, Note9 Series
    - Exynos 8895: Galaxy S8, Note8 Series
    - Exynos 8890: Galaxy S7, Note7 Series
  - OS - Android 6~10
  - Secure folder, Encrypted SD card, Knox / OEM Lock bypass
  - Utility - Screen Unlock, Screen Relock
  - Brute Force utility to attain Secure Startup Password
    - OS – Android 7~9
- Physical extraction
  - Chipsets - Exynos, Qualcomm, SpreadTrum, Broadcom
  - Models - Galaxy S2~S6 Series
  - OS - Android 4~7
  - Screen lock bypass
- ADB Pro T4 physical extraction
  - Chipsets - Exynos/Qualcomm
  - Models - Galaxy S7/7+/8/8+/Note8
  - OS - Android 9, by security patch Aug. 2019
  - Models - Galaxy S9/S8/8+/Note8
  - OS - Android 8
- Smart Switch (Samsung backup protocol) logical extraction
  - OS - Android 6~13

- LG
  - Physical extraction by Android system exploit
    - Models - Q8, G6, G5 and etc.

    - OS - Android ~8
  - Physical extraction
    - Models - V10, G4 and etc.
    - OS - Android ~7
    - Bypass all security lock
  - ADB Pro T5
  - Bridge (LG backup protocol) logical extraction
    - OS - Android 6~13

- Huawei
  - Kirin FFS(Full File System) extraction
    - Models
      - Kirin990 5G - Mate30 5G, P40 5G
      - Kirin990 - Mate30, P40
      - Kirin980 - Mate20, P30, Honor20, Nova 5 Series
      - Kirin970 - Mate10, P20, Honor10, Nova 3 Series
    - OS - Android ~10(EMUI ~11)
    - OEM Lock bypass
    - Huawei Private Space extraction
    - BFU extraction when Screen lock password is unknown
  - ADB Pro T1
  - Physical extraction
    - Models - Mate, P, Honor Series
    - OS - Android 6~7
    - Bypass all security lock
  - HiSuite (Huawei backup protocol) logical extraction
    - OS - Android 6~13

- Other manufacturers
  - Xiaomi, OPPO, Vivo, Google, Sharp, Sony, Pantech physical extraction
  - Chinese, Indian, Japanese, and Korean manufacturers

  - MEDIATEK FFS extraction by MD-PLUG (55 models)
    - Xiaomi(20), Tecno(14), Oppo(11), Lava(4), Realme(3), Micromax(3)
  - Google Tensor FFS extraction by MD-PLUG (7 models)
    - Google Pixel 6, 6a Series

  - ADB Pro T5 extraction for 22 manufacturers of MEDIATEK chip handsets
    - MEDIATEK chipset(MT816X, MT817X, MT67XX)
  - Bootloader Physical – Elephone(P9000), Oppo(A57),
  - SpreadTrum chipset Feature phones extraction – Nokia, QuestMobile, STYLO, iPro
  - MediaTek Screen Unlock – Xiaomi Redmi 11, 12 series by MD-PLUG (Planned in 2024)

- General Android extraction
  - Android Live extraction
    - ADB backup extraction (Android 4~13)
      - App Downgrade extraction

        - Downgraded apps restoration-79 apps
    - Android Agent installation extraction
    - Manufacturers backup extraction – Samsung, LG, Huawei
- Local backup extraction - Huawei, Xiaomi, Oppo, Gionee, Realme
- Rooting extraction
- MTP extraction
- Encrypted partition decryption
- Encrypted image decryption with known decryption key

iOS extraction features

- iOS FFS by Checkm8
    - Models - iPhone 6 ~ iPhone X
    - OS - iOS12.0 ~ 15.7.x
    - iOS keychain extraction
    - Extraction app data not available by iOS backup
- iOS FFS by iOS Agent program
    - Models - iPhone XR, iPhone XS, iPhone 11, iPhone 12, iPhone 13 series
    - OS - iOS15.0 ~ 15.4.1
    - iOS keychain extraction
    - Extraction app data not available by iOS backup
- iOS backup extraction (~iOS 16.x)
    - All device and versions of iOS which can support iOS backup
    - Extraction and decryption of encrypted data with iOS backup password
    - iOS keychain extraction
- iTunes Backup file extraction
    - Extraction from backed up iTunes backup file
- iOS physical extraction
    - Models – iPad 1st Generation, iPhone 4
    - Brute forcing password

Windows Phone extraction features

- Physical Bootloader extraction
- Windows Phone 8.1, 10
    - 63 models including Lumia 540, Lumia 1520
    - Microsoft, Nokia
    - Resource auto-download via online

Feature Phone & various mobile OS extraction features

- Physical extraction
- Samsung, LG, Pantech, Nokia feature phones
- Kai OS, Bada OS, Tizen OS

Extraction from the backup files features

- Extraction from iOS backup file, ADB backup file in PC
- Extraction from backup files in Samsung, LG, Huawei, Xiaomi OPPO, Gionee smartphones

Chip-off reader hardware support

- Memory Chip Reader (MD-READER)
- eMMC : BGA153, BGA169, BGA100, BGA136
- eMCP : BGA186, BGA221, BGA162, BGA254, BGA529

JTAG reader hardware support
- JTAG Reader (MD-BOX)
- JTAG diagram for each supported model
- Supports standard JTAG 20 Pin
- Supports CPU cores of ARM7~ARM11, Cortex-A

Diverse physical data extraction from media card
- Trace32 JTAG debugger
- UP828 memory chip reader
- SD Memory Reader - SD Memory
- UFS Memory Reader - UFS Memory
- USIM Reader - USIM Card

Extract / Clone SIM
- Extract from SIM
- Clone SIM data to GMDSOFT Blank SIM with various input :
  From original SIM / From SIM information in Extracted Image / From Manual input information

Custom extraction
- Supports custom extraction for unlisted models using predefined methods
- Supports Google cloud drive extraction

Selective extraction for privacy protection
- Supports selection of partition, file, category, and app
- Selection of files and folders from the extraction images
- Selection of files and folders in all logical extraction methods

Useful extraction features
- Supports auto recognition of partition table and encrypted partition
- Supports automatic firmware restoration and retrial after restoration failure
- Supports resume of extraction after stopping
- Displays progress, expected extraction image size, transfer rate, and expected extraction time
- Supports merge of multiple image file - MDF and binary file
- Supports preview of the extraction data - Hex viewer, Data viewer
- Supports creation of MDF file from PC backup
- Sound alarm for extraction status change

Extraction utilities
- Model search by Model name and Pet name
- Model auto-detection
- Recent extraction lists
- Extraction guide per models and manufacturers
- Extraction how-to video clip
- Firmware restoration

- Resource download from server
- Voice alarm for extraction success and failure
- Multi-language support (English, Chinese, Korean)
- Intuitive graphical user guide and troubleshooting guide for each extraction method
- List of recently selected models

Assurance of evidence data integrity

- Supports write-protection to every evidence data
- Supports Hash Verification after extraction is completed.
- Supports 10 hash algorithms such as
  MD5, SHA1/224/256/384/512, RIPEMD128/160/256/320

Extraction data save

- Dumped image can be saved as 'MDF' and standard binary file format
- Metadata (.info) file can be separately saved
- Pre-defined extraction file name

Reporting features

- Extraction information - Hash value, Time, Method, and Filename
- Extraction results of Apps (Android Live)
- Supports report format such as PDF, Excel, and HTML
- Supports 'Extracted File List' generation with hash value of each file
- Re-generation of 'Extraction Reports'
- Auto-analysis and analysis report creation by MD-RED (Option)

Excellent extraction performance

- Max. 32GB/20min extraction performance
- Multiple device extraction
- Extraction sequence management - Sequential/Simultaneous

MD-RED

Data analysis software for Recovery, Decryption, Visualization, Analytics, and Reporting of evidence data from mobile and digital devices

MD-RED is the forensic software for the recovery, decryption, visualization, analytic data mining and reporting evidence data from which are extracted with MD-NEXT or other extraction tool.
All the results of analysis can be exported as the forensic reports for the investigation of crimes and cases. Also, the analysis module of latest mobile apps is quickly updated by continuous research.

System Requirements

OS : Windows 7/8/10 (64 bit)
CPU : i7 or faster
RAM : 16GB or above
HDD : 1TB or above
Display : 1920x1080 or higher
USB : 2 or more USB 2.0/3.0/3.1 ports

Product components

MD-RED Installation Software (USB/Online)
USB Dongle Key 1 EA
Warranty 1 Year

Specification

Product Highlights

- *Analysis and recovery of various filesystem and 2,200 or more apps*
- *Quick update on new version of apps*
- *Decode, Decrypt, Deserialize and Recover data from the extracted image*
- *Social relation analysis with call, messages, messenger, and email*
- *Drone and IoT data analysis*
- *Visualization of analysis result*
- *Python editor for the development of analysis script*
- *WhatsApp local backup decryption and analysis*
- *Android multiple space analysis*
- *Secure messenger decryption - Signal, Wire, Wickr Me, Discord*
- *Standalone analysis report viewer program, MD-Explorer*

Key Features

Supports various mobile OS and devices

- Supports feature phone, smartphone, and various digital devices
- Supports iOS, Android, Windows, Tizen and other mobile OS

Parsing and recovery of various extraction images

- Integrated analysis of SD Card storage image and Phone data partition image
- Extraction images support
  - MDF, E01, GrayKey, UFED extraction images
- Filesystem support

  - FAT12, FAT16, FAT32
  - NTFS, exFAT, HFS+, EXT2, EXT3, EXT4, F2FS, VDFS, APFS
  - TAT16, TAT32, NxFS, HIKVISION, DHFS4.1, WFS0.4, TANGO, RSFS, WOW, VDFS, XFS
  - YAFFS, EFS2, TFS4
- Data carving for unused area

Analysis of mobile apps and mobile data

- Analysis of over 2,200 iOS and Android apps
- Multimedia files taken by phone camera
- Call log, Address book, SMS/MMS, e-Mail, Memo, Internet history
- SNS, Map, Navigation, Health, Banking and Lifestyle app
- Detects Steganography, Anti-forensic apps installed

Python script editor for user-defined analysis

- Python script editor for advanced user
- Code generation, Code execution and debugging and Sample script

Decryption and recovery of data

- Identifies encrypted document
- Decrypts encrypted chatting message, email, file, and app data
- Recovery of deleted file and data, multimedia files
- Frame recovery of deleted video data

Multiple space analysis

- Samsung secure folder (KNOX space) analysis
- Huawei Private Space analysis
- Multiple apps analysis: 2Accounts, Parallel Space, App Hider, Multi Parallel, Dual Space, Multi Space
- Workspace apps analysis
- Dual messenger service analysis
- Two phone service analysis
- Decrypts encrypted chatting message, email, file, and app data

Deep analysis of popular messenger

- Deserialization, Decryption and Recovery of data
- Description of encrypted messenger data
  - WeChat, KakaoTalk, Signal, Facebook Messenger, Wickr Me
- Multiple backup files analysis - WhatsApp
- Multiple account analysis - WeChat, Telegram, Instagram, Facebook Messenger
- Popular global messengers support - Skype, Line, Zalo, Snapchat, Wire, Google Chat, Discord, Threads, Likee, Halo, QQ, Viber, Threema, Zepeto, ClubHouse, MeWe, Chat Secure, Currents, SKOUT, BiP, Weibo, Whisper, MiChat

WhatsApp and clone app support

- WhatsApp, WhatsApp Business
- Clone Apps: FMWhatsApp, GBWhatsApp, JTWhatsApp, OBWhatsApp, OB2WhatsApp, OB4Whatsapp, OGWhatsApp, YoWhatsApp

Remote access and vault app support

- Remote access: Team viewer, AnyDesk, Chrome report desktop
- Vault app: Hide App Files, Hide Photos Vault, App Lock, etc.,

Support various Indian local apps

- Messenger: Jio Chat, Sandes, Share Chat
- Transportation: redBus, Make my Trip, IRCTC Rail Connect

- E-Commerce: Licious

Decodes screen lock and password information

- Decodes Pattern, PIN and Password for unlock
- Brute forcing by GPU acceleration
- iPhone keychain data analysis

Mobile database analysis

- SQLite, Realm, BoltDB, ESEDB, WMDB, LevelDB, LightningDB and others

Multimedia data recovery and analysis

- Signature based multimedia analysis
  - RIFF, ZIP, JPG, GIF, SIS, PNG, BMP, BGR, MP4, MKV, MPEG, TS, WEBM, WEBP, Exo, FLV, SSF, DAV, ZAV, WMV, CAF, MMF, EVRC, AAC, ASUD, OGG, FLAC, HWP, WORD, EXCEL, RTF, XML, VCARD, SQLITE3, REALM, BOLT, ESE, 7-ZIP, ALZip, LZH, RAR, Win EXE, Shell Script, Dalvik
- Frame recovery for deleted/damaged video file
- Exclusion of + 194M pre-registered images by RDS (Reference Data Set)
- Audio file converter (From AMR/AUD/QCP/SILK to MP3/AMR/WAV)
- Supports QCP file play and Silk codec decoding

Log files analysis

- Media log, Search word log
- System log, Network log (Bluetooth, WiFi, Cell Tower)

New digital device analysis

- IoT data analysis - AI Speakers, Smart TV, Car Navigation
- Drone app analysis - DJI Fly, DJI GO, DJI GO 4, DJI Pilot

Presentation of analyzed data

- Check-out function for not analyzed database
- Summarization of analyzed data base
- Source information display with file, path, and database record
- Categorization of analysis results by app and app types

Important analysis results notification

- Initialization or factory reset footprint
- Anti-forensics apps installed
- Steganography apps installed
- Non-default spaces found

Advanced data selection

- Selection tool for analysis data
- Selection status save
- User-defined deduplication option
- Multimedia files exclusion by path and hash DB
- Bookmarking
- Correlated data selection from contacts, messages, and call history

Advanced data filtering and search

- Search by hash value to match the same file
- Filter by file system, signature, time, and more fields
- Dynamic filtering operators, sorting, grouping
- Search by regular expression, compatible characters, multiple keywords
- Keyword registration
- Multimedia filter by app, status, size, type, property, path

Visualization of analyzed data

- Map view for GPS data and cell tower location
  - Offline/Online map (Region/Country/City - 3 level)
  - Over 70 countries' map data
- Timeline view of analyzed data
- Link viewer for social relationship visualization
- Chat viewer for communication visualization
  - Chat view per room and per contact
- Web browser for internet history review

Social relationship analysis

- Basic mode for single phone analysis
- Advanced mode for multiple phone analysis
- Call, messenger, email communication data analysis
- Contacts merge and split
- Filter by app, period, contacts, types of communication
- Community analysis by centrality
- Visualized relation and automatic rearrangement
- Easy to access to specific node and communication link

Embedded data viewers

- SQLite database viewer
- HEX data viewer
- PList, BPList viewer
- Documents viewer (Text, XML, CDF, PDF, MS office, ZIP, Executable, Encrypted)
- Photo Gallery
- Video player
- Audio player

Tools and utilities

- Audio file conversion of QCP and SILK codec files
- Export of app log-in token and session information to MD-CLOUD
- Export of Drone app analysis results to MD-DRONE

Reporting features

- Supports export of original or converted files with hash value of files
- Supports report formats of PDF, Excel, ODS, HTML, XML and SQLite DB
  - PDF file form customization with title, header, footer, background
  - Excel file sheets division by contents size and records numbers
- Supports 3rd party report format such as NUIX, Relativity and Detego
- Supports analysis result viewer MD-Explorer, Standalone and distributable program
  - Data tagging, searching, watermarking, and reporting
- Electronically stored information (The list of all exported files) can be included with PDF, Excel, Word or MDF formats in the reporting

Case management

- Case information input
- Grouping of extraction images
- Hash value verification on each extraction image

Maximized analysis performance

- High performance by multi-core CPU/GPU parallel processing by AI inference engine
- Multiple analysis program execution for each case

MD-CLOUD

Cloud forensic software for extraction and analysis of cloud data

MD-CLOUD is the most intuitive digital forensic software tool that extract and analyze the data from the cloud data storage. It supports broad range of cloud services

System Requirements

OS : Windows 7/8/10(64bit)
CPU : i7 or faster
RAM : 16GB or above
HDD : 1TB or above
Display : 1920x1080 or higher
USB : 2 or more USB 2.0/3.0/3.1 ports
Network : Internet connection via wired or wireless LAN

Product components

MD-CLOUD Installation Software (USB/Online)
USB Dongle Key 1 EA
Warranty 1 Year

Specification

Product Highlights

- *Supports global cloud service*
- *IoT cloud and Asian cloud service*
- *Authentication supports by ID/PWD, 2-step security, Captcha, and credentials*
- *Web capture feature*
- *Search with tag information*
- *Interwork with MD-RED*
- *Tracking user activities by Google Takeout analysis*

Key Features

Supports various cloud services acquisition

- Google Cloud, iCloud, Samsung Cloud, IMAP/POP3, Gmail, Naver mail, Evernote, One Drive, MYBOX, Dropbox, Twitter(X), Tumblr, Telegram, Facebook

Specialized in Asian Cloud service

- Baidu cloud in China
- Naver cloud in Korea

Acquisition of IoT cloud

- IoT data extraction from AI speaker and Smart home kit (Google Home, Samsung SmartThings)
- Official and unofficial APIs for authentication

Supports commerce app service

- Coupang

Web capture feature

- Supports capturing data from web pages without APIs provided

Google Takeout & Local PC file extraction

Supports Window PC file folder extraction

Supports various authentication methods

- ID/PASSWORD authentication
- Captcha security authentication
- 2-step security authentication
- Authentication using credential information

Monitoring the progress of data acquisition

- Supports real-time monitoring progress during data acquisition

Visualized data view

- By timeline
- By location at the map

User-friendly and easy to use

- Intuitive user interface and quick extract procedure

Interwork with MD-RED

- Supports extra data acquisition from cloud using ID/PASSWORD
- Supports reuse of session token left in analyzed data by MD-RED

Fast search using extracted 'Tag' information

- Supports extraction of 'Tag' information from cloud data
- Supports easy and fast search with pre-categorized 'Tag'

Various built-in viewers

- Image, video (MPEG-4, H.264, H.265, M-JPEG), document, web page and email can be previewed

Snapshot of filtering option

- Supports snapshot of filter and sort configuration for reuse in workspace
- Supports the screenshots of the visualized results

Assurance of evidence data integrity

- Supports 10 hash algorithms such as MD5, SHA1 and SHA256

Reporting features

- Supports report format such as PDF
- Supports export of original cloud data files

MD-VIDEO AI (MD-VIDEO)

Video forensic software for replay, convert, recovery, analytics, enhancement of video and image data.

MD-VIDEO AI is the forensic software supporting for recovery and analysis of video data from the various storage like HDD/SSD disk, memory card, disk image and video files from any devices such as CCTV, DVR, Car Dashcam, Camcorder, Camera module in UAV or vehicle and IoT camera.

System Requirements

OS : Windows 8/10/11 (64bit)
CPU : i9 or faster
GPU : 1 or more multi-core Nvidia GPU card for acceleration
RAM : 32GB or above
HDD : 1TB or above
Display : 1920x1080 or higher
USB : 2 or more USB 2.0/3.0/3.1 ports
Thunderbolt4 : 1 or more ports

Product components

MD-VIDEO AI Installation Software (USB/Online)
USB Dongle Key 1EA
Warranty 1 Year

Product Highlights

- *Replay, recovery, and analysis of video data from CCTV, DVR and Car dashcam*
- *Advanced multi-level recovery options and partial carving technology*
- *Supports Replay/Recovery/Analysis of RAID configured disks*
- *Supports various DVR filesystems, video formats, video codecs*
- *Regenerate video with recovered video frame*
- *OCR for time/channel, Time adjustment*
- *Audio recovery*
- *Supports retrieving unsaved cases when program closes abruptly.*
- *Supports analysis resumption when program closes abruptly.*
- *Supports multiple language UI (Korean, English, Chinese, Japanese, Vietnamese)*
  (MD-VIDEO AI Only)
- *Video analytics module with AI-based object detection for forensic evidence*
- *Context-based anomaly detection*
- *Supports face detection.*
- *Supports deep fake face detection from deep faked videos.*
- *Supports detection of all license plates from a single video or multiple videos.*
- *Supports vehicle number plate detection.*
- *Video Image enhancement – Brightness, contrast, Super resolution, Deblur, Tracking and Overlay*
- *Vehicle number plate restoration by country specific AI models*
- *Supports GPU acceleration for AI analysis features*

Specification

Recovery Features

Video forensics for CCTV, DVR, car black box, smartphone etc.

- Supports CCTV and DVR from global manufacturer, car black box, smartphone, desktop, server, IP camera, digital camcorder and camera module in vehicle, drone, wearable, and embedded system.

Supports extraction from various data source

- Supports mounted storage like hard disk by physical connection.
- Supports RAID configured disk storages (RAID0 and RAID5).
- Supports removable media storage like SD memory, USB memory.
- Supports binary disk image of DD, E01, BIN and MDF.
- Supports files or folder which have damaged or deleted files.

Supports various video filesystem.

- Supports auto-detection of filesystem for unknown manufacturers and model.
- Supports various kinds of filesystem formats.
  - FAT12, FAT16, FAT32, TAT16, TAT32
  - FAT32-based format free filesystem
  - APFS, Cramfs, NTFS, NxFS, RSFS, exFAT, HFS+, EXT2, EXT3, EXT4, F2FS, XFS, VDFS.
  - YAFFS, EFS, TFS, FSR, XFS, XSR, WFS0.4, DEED
  - HIKVISION, COMMAX, DHFS/DHFS4.1, TANGO, WOW, WEBGATE, ZHILING, HUMAN, DCH264, IFS, BKFL, TDB
- Supports DVR manufacturer's Model
  - 3R, ADT Caps, AURA, BOSCH, COMMAX, CP-Plus, DAHUA, EGPIS, FLIR SYSTEM,FOCUS H&S, Hanwha Techwin, Hanwha Vision, HIKVISION, HISEEU, HITRON, Honeywell, HUMAN, IDIS, ITX Security, JMotive, JWC,KCE, KOCOM, NADATEL, NSOK, Panasonic, PRAVIS, Provision, Q-See, S-1, WEBGATE, Samsung Techwin, SKYREX, Swann, TIBET, WOW, Zmodo.
- Supports Dashcam manufacturer's Model
  - AlphaView , Apeman, COMTEC, CAMMSYS, Dasuong, ESV (S1 Pro), FineVu, GARMIN, GNet System, Hyundai-mnsoft, , iNavi, innopix, KENWOOD, Mando, MPEON, MyDean, NEXTBASE, Orion Topsync, Pontus, THINKWARE, Ubmt, Urive, Xiaomi.
- Supports NVR manufacturer's Model
  - Milestone (Husky M30)

Supports various video codecs

- Supports H.264, H.265, MPEG4, MJPEG
- H.264 resolution adjustment for recovery
- HEVC (H.265) recovery and replay iOS 11 or above
- Sampling codec from the video file and smartphone codec
- User-defined codec parameter setting

Supports video file formats

- Supports 264DV, AVI, DAV, DMD, FLAC, M4V, MKV, MOV, MP4, MPEG, MPEG-PS, SSF, STL, SYNAV, ZAV

Supports video file scanning

- Supports auto-scanning of partition
- Supports recovery of the selected partition

- Frame and file format scan
- Deleted and damaged file scan

Various ways of video recovery

- Deleted video file recovery
- Signature-based file recovery (DAV, MP4, MPEG/MPEG-PS, STL/SSF, AVI, ZAV)
- Frame extraction and reassemble from the damaged video file
- Video frame recovery with the codec information of local codec file or local video file
- Partial recovery for the specific time range of OCR time or time data (H.264, H.265)

Reconstruction of video frames

- Supports reassemble of frames into video file
- Supports export of video frame as picture
- Supports thumbnail preview and image view

Supports audio file recovery

- Supports audio file recovery for SILK format

Supports analysis of channel and time information of video data

- Supports the recovery of time from the meta-data file
- Supports OCR for time/channel data creation

Review Features

Inbuilt multimedia player

- Video, audio, frame viewers
- Multiple play for multi-channel video
- Play speed control (1/10X, 1/2X, 2X, 4X, 8X), Auto Play
- Supports over 300 types of video format (MP4, AVI, MKV, WMV, MPEG, etc.)
- DVR video file play (DAV, ZAV, SSF)
- Video stream play
- Audio play (QCP, SILK etc.)

Data viewers

- Hex viewer
- File viewer

Bookmark, commenting, sorting, filtering, indexing and search.

- Supports book marking for review and reporting.
- Supports adding comments on each file.
- Supports sorting, filtering, and indexing of files and frames, multiple frames bookmarking.
- Supports search by status, resolution, creation time, modified time.
- Supports adding comments on each file recovered.

Date Time adjustment

- Gets time information of video file by analyzing metadata of each frame.
- Supports time zone change.
- Supports time shifting for adjustment of recorded time.

Video Analysis Features (MD-VIDEO AI Only)

Anomaly detection

- Detection of a scene which deviates significantly from the normal video contents.

- Contextual anomalies can be viewed in the Timeline as a red mark or in Object gallery.

Objects detection

- AI-Based Object Detection
- Detected objects categorization - More than 80 kinds of objects can currently be recognized.
- Forensics objects categorization by deep learning with VR modeling - Weapons > Rifle, Pistol
- Deduplication of same objects detected.
- Color and Area Filter - After detection of all the objects, the color and area filter can help easily to find the target object to match.
- Time Filter - Provides time offset setting for viewing the detected objects in the desired time zone as well.
- Object Filter - Provides filter for the user to view only relevant objects.
- Small Objects Detection - Provides additional detection of small objects in the selected video frames by GPU acceleration enabled.
- Supports face detection.
- Analysis of video files to detect deep faked faces and display the results.
- Provide deep fake level percentage for each deep fake face detected.
- Analysis of video files to detect license plates of all vehicles appearing within the video file.
- Supports marking of detected objects with bounding box.

Video summarization

- Capable of shortening a long video by extracting only sections of the video that contain motion or moving objects frames,
- Number of objects detected are shown as visualized graph by timeline.
- Analytics results can be saved as summary video scene file.

Video display quality enhancement

- Adjusting the brightness, contrast, and color of the analysis results
- Density (Brightness, Contrast, Gamma)
- Color (Red, Green, Blue)
- Edge Sharpening, Noise Reduction.

<u>Frame ENhancement Features (MD-VIDEO AI Only)</u>

Video frame image enhancement

- Added image editing and adjustment functions.
- Crop, rotate/reverse, image filter, brightness/contrast,
- Image stabilization or perspective transformation for viewing objects taken from the side.
- Lens distortion correction, Deinterlacing, focus correction, image overlay.
- Higher resolution conversion to identify human faces in images taken from a distance.

Super resolution

- Enhancement of resolution by 4 methods of learning such as SRGAN, EDSR, ESPCN and FSRCNN

Deblur

- Various methods of Automatic ML-based image deblur and Motion deblur

Tracking and Overlay

- Improved clarity by overlaying and tracking of consecutive frames in a video.

Car & Motorcycle number plate restoration

- Machine learning by car plate number structure per country

- Supports global car number plate restoration by country – Republic of Korea, Bangladesh, Bhutan, Burkina Faso, Denmark, Ecuador, India, Indonesia, Iraq, Japan, Mongolia, Oman, Qatar, Saudi Arabia, Thailand, United Kingdom, United States (New York State) and Vietnam.
- Analysis by deblurring, tracking, OCR, overlay, super resolution
- Prediction of numbers combination

De-Identification

- Pixelation or blurring the specific area for the protection of privacy or GDPR compliance.

Export file and reporting Features

File/Scene export and save.

- Export original or converted file.
- Add file signature of recovered file or frame when exporting.
- Export frame enhancement results.
- Export video files of channel in different folders.
- Export thumbnails with option of Small, Large and Without Thumbnail
- Summarized scene can be saved as playable video file.
- Objects and bounding box can be added in summarized scene file.

Format converter

- Supports recovered frame convert to JPG and PNG format.
- Supports Video file convert to AVI and MP4 format.
- Supports Sound file convert to MP3 and AMR format.

Assurance of evidence data integrity

- Supports 10 hash algorithms such as MD5, SHA1, SHA224, SHA256, SHA384, SHA512, RIPEMD128, RIPEMD160, RIPEMD256, RIPEMD320

Reporting features

- Supports report format such as PDF and Excel
- Supports watermarking in PDF report.
- Supports Summary and detailed report.
- Supports report file separation based on categories like Video, Picture

Hardware acceleration feature (MD-VIDEO AI Only)

Multi-core CPU/GPU acceleration

- Recovery acceleration with multi-core CPU
- Detection of object acceleration with multi-core GPU
- List of supported GPU cards
- Supports Volta, Turing, Ampere GPU architecture.
- Enhance its detection/recovery performance.
- Supported GPU model list

No.	Architecture	GPUs	Models
1	Volta	GeForce	TITAN V
2		Quadro	GV 100
3		NVIDIA	V100
4	Turing	GeForce	TITAN RTX
5			RTX 2080 Ti

6			RTX 2080
7			RTX 2070 Super
8			RTX 2070
9			RTX 2060 Super
10			RTX 2060
11		Quadro	RTX 8000
12			RTX 6000
13			RTX 5000
14			RTX 4000
15		Tesla	T4
16	Ampere	GeForce	RTX 3090
17			RTX 3080
18			RTX 3070
19			RTX 3060 Ti
20			RTX 3060
21			RTX 3050
22		NVIDIA	RTX A6000
23			RTX A5000
24			RTX A4000
25			RTX A3000
26			RTX A2000
27		NVIDIA(Data Center)	A100
28			A40
29			A30
30			A10
31			A16

MD-VIDEO AI HYPER

Video forensic workstation for the acceleration of recovery and analysis of video data

MD-VIDEO HYPER is the forensic workstation preinstalled with MD-VIDEO AI software for recovery and analysis of video data from the various storage like HDD/SSD disk, memory card, disk image and video files from any devices such as CCTV, DVR, Car Dashcam, Camcorder, Camera module in UAV or vehicle and IoT camera.

System Specification

CPU : Intel i9 series or above
GPU : Multi-core Nvidia RTX Series GPU card with over 24GB memory for acceleration
RAM : 256 GB or more
HDD : 3 x 8TB or more
USB : 2 or more USB 2.0/3.0/3.1 ports
SSD : 2 x M.2 2TB PCIe NVMe or more
NIC : 10GbE NIC
ODD : 8x DVD-/+RW
Forensic Write Blocker : TABLEAU - T35689iu, forensics write-blocking bridge
(IDE, SATA, SAS, USB 3.0, or FireWire 400/800)
Keyboard & Mouse
Tower Type Case
OS : Windows 10/11 Pro 64bit

Monitor: 2 x 32” UHD Monitor (Option)
3rd Party Imaging software (Option)
3rd Party Imaging hardware for RAID disks (Option)

Product components

MD-VIDEO AI Installation Software (USB or Online)
USB Dongle Key 1EA
Warranty 1 Year

Specification

Product Highlights

- *Replay, recovery, and analysis of video data from CCTV, DVR and Car dashcam*
- *Advanced multi-level recovery options and partial carving technology*
- *Supports various DVR filesystems, video formats, video codecs*
- *Regenerate video with recovered video frame*
- *OCR for time/channel, Time adjustment*
- *Audio recovery*

(MD-VIDEO AI Only)

- *Video analytics module with AI-based object detection for forensic evidence*
- *Context-based anomaly detection*
- *Video Image enhancement – Super resolution, Deblur, Tracking and Overlay*
- *Car and Motorcycle number plate restoration by country*

- *Enabled GPU acceleration for AI analysis features*

Key Features

MD-VIDEO AI recovery and analysis features all included

Machine learning acceleration by GPU card

- Supports GPU multi-core AI-based analysis acceleration
- Supports many machine learning algorithms
- Supported GPU model list

No.	Architecture	GPUs	Models
1	Volta	GeForce	TITAN V
2		Quadro	GV 100
3		NVIDIA	V100
4	Turing	GeForce	TITAN RTX
5			RTX 2080 Ti
6			RTX 2080
7			RTX 2070 Super
8			RTX 2070
9			RTX 2060 Super
10			RTX 2060
11		Quadro	RTX 8000
12			RTX 6000
13			RTX 5000
14			RTX 4000
15		Tesla	T4
16	Ampere	GeForce	RTX 3090
17			RTX 3080
18			RTX 3070
19			RTX 3060 Ti
20			RTX 3060
21			RTX 3050
22		NVIDIA	RTX A6000
23			RTX A5000
24			RTX A4000
25			RTX A3000
26			RTX A2000
27		NVIDIA(Data Center)	A100
28			A40
29			A30
30			A10
31			A16

Multi-core CPU processing for MD-VIDEO AI recovery and analysis

- Supports mounted storage like hard disk by physical connection
- Supports binary disk image of DD, E01, BIN and MDF
- Supports file or folder which have damaged or deleted files

MD-RED HYPER

Mobile forensic workstation for the acceleration of recovery and analysis of mobile device data

MD-RED HYPER is the forensic workstation preinstalled with MD-RED software for analyzing and recovering data supporting acceleration of machine learning and multiple processing of analysis.

System Specification

CPU : Intel i9 series or above
GPU : Multi-core Nvidia RTX Series GPU card with over 12GB memory for acceleration
RAM : 128 GB or More
HDD : 3 x 8TB or more
USB : 2 or more USB 2.0/3.0/3.1 ports
SSD : 2 x M.2 1TB PCIe NVMe
NIC : 10GbE NIC
ODD : 8x DVD-/+RW
Forensic Write Blocker : TABLEAU - T35689iu, forensics write-blocking bridge
(IDE, SATA, SAS, USB 3.0, or FireWire 400/800)
Keyboard & Mouse
Tower Type Case
OS : Windows 10/11 Pro 64bit

Monitor: 32” FHD Monitor (Option)

Product components

MD-RED Installation Software (USB or Online)
USB Dongle Key 1EA
Warranty 1 Year

Specification

Product Highlights

- *Analysis and recovery of various filesystem and 2,200 or more apps*
- *Decrypt the encrypted SNS message*
- *Quick update on new version of apps*
- *Social relation analysis with call, messages, messenger, and email*
- *Drone app and IoT data analysis*
- *Visualization of analysis result*
- *Python editor for the development of analysis script*
- *WhatsApp backup decryption and analysis*
- *Dual app analysis in Samsung Phones*
- *Secure messenger decryption - Signal, Wire, Wickr Me, Discord*
- *Standalone analysis report viewer program, MD-Explorer*
- *Multiple processing of analysis engine*
- *Enabled GPU acceleration for AI analysis feature*

Key Features

Machine learning acceleration by GPU card

- Supports GPU multi-core AI-based analysis acceleration
- Supports many machine learning algorithms

Multi-core CPU processing for MD-RED data recovery and analysis

- Supports multicore processing for data analysis

MD-RED recovery and analysis features all included

MD-DRONE

Drone forensic software that extracts and analyzes various type of drone device data

MD-DRONE is the forensic software for extracting and analyzing data from the various data source of UAV/Drone.

System Requirements

OS : Windows 8/10/11 (64bit)
CPU : i7 or faster
RAM : 16GB or above
HDD : 1TB or more
Display : 1920x1080 or higher
USB : 2 or more USB 2.0/3.0/3.1 ports

Product components

MD-DRONE Installation Software (USB/Online)
USB Dongle Key 1EA
Warranty 1 Year

Specification

Product Highlights

- *Provides various extraction methods for wide range of drone devices*
- *Interwork with MD-READER for chip-off extraction*
- *Interwork with MD-RED for mobile app of drone analysis*
- *Timeline-based integrated flight data analysis*
- *Drone activity and accident analysis by AI & Machine learning*
- *Data Viewer - Flight log, Drone flight path*
- *Bookmark and extraction status alarm notification*
- *Reports generation*
- *Multimedia data export*
- *Supported drone list*

Key Features

Various extraction methods for wide range of drone aircraft

- Extraction through the drone aircraft USB connection
- Extraction through the network connection (WiFi)
- Extraction through SD card
- Chip-off extraction (Requires memory chip socket and reader like MD-READER)
- Drone App data extraction from Android devices
- Extraction of Remote Controller (RC) data
- Extraction & Analysis of multiple targets in a single case
- Drone App data can be extracted with MD-NEXT and exported with MD-RED
- Provides an extraction guide for each method

Timeline-based integrated flight data analysis

- Flight log files(*.txt, *.srt) from mobile app can be analyzed
- Timeline-based flight parameter values (speed, altitude, value of each motor, etc.) can be viewed in graphic format
- Drone's position and posture (Yaw, Roll, Pitch) information on the timeline
- Integrated view of flight history and media data preview on the timeline
- Playback and reconstruct flight history on the map
- Check the selected media in the timeline chart

Deep analysis of flight data by AI and machine learning

- Learning of accidental or abnormal flight log data
- Find out the collision, battery exhaustion, normal landing, and abnormal flight position/time

Detail flight data view and selection

- Detailed values of the flight log in the table and visualization on the map
- Classify meaningful flight log values such as altitude, ground speed, battery, and signal strength and display in different colors on the map
- Table view of GPS-based drone track, latitude, longitude, and movement history
- Sorting and filter flight data in time order

Multimedia gallery

- Select the multimedia (video, photo) file with the matching time information in the flight record
- Filter the multimedia file by such as the path, creation date, and size
- Intuitive analysis through the preview feature

Bookmark

- Supports bookmark feature for flight time range, image, and video

Notification

- Displays & saves important notifications in notification center, related to extraction & analysis while using MD-DRONE product

Report generation

- Supports to export reports in PDF format based on the bookmarked contents.
- Supports to export each manufacturer's flight log glossary in csv format.
- Supports to export flight log files into CSV format
- Supports to export flight log files into KML format
- Supports to export flight path as a video file

Multimedia Export

- Supports to export the acquired original multimedia data (photo, video)

Supported drone aircraft list

- **Aircraft - USB connection**
  - **DJI**
    - Phantom 4 Series
    - Matrice 200 Series
    - Inspire 2
    - 600 Pro
    - AGRAS MG-1S
    - Phantom 3 Series
  - **Yuneec**
    - Typhoon H Plus, Typhoon H
    - 520
  - **ALLNEWTECH**
    - ANT-H5

- **Sundori**
  - SDR-H-2021, SDR-M1
- **EFT**
  - EFT-E610
- **Parrot**
  - BEBOP 2 Power

- **Flight Control Computer - USB connection**
  - **DJI**
    - A3
    - N3
  - **PixHawk**
    - PixHawk4
    - The Cube, V5+
    - PX4_2.4.6
    - PixHawk New X7
    - PixHawk V5+
    - PixHwak2 Cube Orange
    - PixHwak2 Cube Black
    - PixHawk 2.4.7

- **SD Card of Drone**
  - **DJI**
    - Mini 3 Pro
    - Phantom 4 Series
    - Mavic Pro Series
    - Phantom 3 Series
  - **PixHawk**
    - PixHawk 4 Series
    - PX4 2.4.6 Series
    - Cube
    - V5+
    - X7
  - **Yuneec**
    - Typhoon H Plus
  - **Autel**
    - EVO II
    - EVO II Pro
  - **HUBSAN**
    - ZINO PRO
  - **JJRC**
    - X22
  - **JIYI**
    - K++ V2
  - **Mro**
    - PixHawk 2.4.7
  - **Hex&ProFiCNC**
    - PixHawk 2 CUBE Black
    - PixHawk 2 CUBE Black
  - **RadioLink**
    - Mini Pix

- **All UAVs which use SD Card for their multimedia storage**

- **Chip-off**
  - **DJI**
    - Mini 3 Pro
    - Mavic 2 Pro
    - Mavic Air
    - Mavic Air 2
    - Spark
    - Matric 300
  - **Parrot**
    - Bebop2 Power
- **WiFi Network**
  - **Parrot**
    - Bebop2
- **Android device Drone Apps**
  - **DJI**
    - DJI GO
    - DJI GO 4
    - DJI FLY
    - DJI pilot
    - Etc Drone Harmony
    - UgCS for DJI
  - **HUBSAN**
    - X Hubsan
  - **JJRC**
    - HFun fly
  - **Etc** (for Universal drones)
    - Drone Control
    - Drone Deploy
    - Drone link
    - Measure Drone Control

- **Remote Control**
  - **DJI**
    - GL300K
    - GL300N
    - RM330
    - RM500-ENT
    - RM500-AG

MD-BOX

Digital forensic hardware for extracting data directly from the board using JTAG interface

MD-BOX is the forensic hardware for extracting data directly from the mainboard using JTAG interface. When the mobile device has damage on the external parts, but the mainboard still works, the examiner can connect the mainboard to MD-BOX through JTAG interface. Then, the data can be extracted at the menu of JTAG Extraction in MD-NEXT program

Product components

MD-BOX Hardware 1 EA
Probe connector 1 EA
Power adapter 1 EA
Pin header dual 2x40 1 EA
Pin cable 1EA
Warranty 1 Year

MD-CARRIER (Option)
MD-Cable Suite (Option)

Hardware Specification

CPU: ARM9
RAM: 64Mbytes
Input Voltage: DC 5V/2A
JTAG Clock: 1KHz ~ 50 MHz
Connector Type: 20 Pin Connector
Target Voltage: 1.8V ~ 5.0V
Size: 75 x 120 x 18mm

Specification

Product Highlights

- *Physical extraction for the mainboard with JTAG*
- *Applicable to the damaged mobile device*
- *Various Mobile CPU support*
- *Faster and robust extraction feature*
- *Write protection and evidence integrity*
- *Data image file save with MD-NEXT*

Key Features

Data extraction from the board with JTAG interface

- Forensic hardware for reading data directly from the mainboard of mobile device using JTAG interface

Advanced extraction features

- Supports auto-scanning of partitions
- Supports the selected partition extraction
- Supports extraction without reference voltage
- Supports DMA (Direct Memory Access) type extraction
- Supports resumption of extraction from the halted point

Mobile CPU support

- MSM6XXX, MSM7XXX, APQ, Exynos, OMAP, Cortex - A, Xscale Series CPU family

Excellent extraction performance

- Max. 1MB/sec extraction performance

Assurance of evidence data integrity

- Supports write-protection of the evidence data
- Supports 10 hash algorithms such as MD5 and SHA256

JTAG cable support

- Supports FPCB connector cable sets, MD-Cable Suite
- Supports manual connection by soldering work

Image file save using MD-NEXT

- Saves data as MDF image file with MD-NEXT software

MD-READER

Digital forensic hardware for extracting data from Chip-off memory

MD-READER is the forensic hardware for extracting data directly from the flash memory detached from the mainboard of digital device. The detached flash memory needs to be mounted into one of the memory sockets bundled with MD-READER. Then, the data extraction can be done at Chip-off menu in MD-NEXT program

Product components

MD-READER Hardware 1 EA
Sockets of eMMC or eMCP 5 EA (5+ sockets as Option)
Universal SD memory card socket 1 EA
Power adapter 1 EA
USB cable 1 EA
Monthly update license for new models
Warranty: 1 Year

Hardware Specification

CPU: Samsung S5PV210
RAM: DDR256M
Memory: NAND 512M
Input Voltage: DC 5V
Size: 110x140x35mm

Specification

Product Highlights

- *Supports data extraction of Chip-off flash memory*
- *Supports heavily damaged mobile phones or digital device*
- *Supports drone eMMC memory*
- *Supports 10 types of eMMC/eMCP memory sockets*
- *Supports universal SD memory card socket*
- *Excellent extraction performance*
- *Write protection and evidence integrity*
- *Data image file save with MD-NEXT*

Key Features

Data extraction from Chip-off flash memory

- Supports data extraction from the flash memory of mobile phones or digital device heavily damaged by fire, water, or external shock.

Supports 10 types of eMMC/eMCP memory sockets

eMMC memory sockets (5 Types)

BGA153 eMMC - 11.5x13x0.5mm
BGA169 eMMC - 12x16x0.5mm
BGA169 eMMC - 14x18x0.5mm
BGA100 eMMC - 14x18x1.0mm (Option)
BGA136 eMMC - 10x10x0.5mm (Option)

eMCP memory sockets (5 Types)

BGA186 eMCP - 12x16x0.5mm
BGA221 eMCP - 11.5x13x0.5mm
BGA162 eMCP - 11.5x13x0.5mm (Option)
BGA254 eMCP - 11.5x13x0.5mm (Option)
BGA529 eMCP - 15x15x0.5mm (Option)

**5 Sockets can be selectable among the 10 items including option sockets at order*

Universal SD memory card socket

- Supports SD Card, Mini SD Card, Micro SD Card

Selective data extraction

- Supports auto-scanning of partitions
- Supports extraction of selected partition

Excellent extraction performance

- Max. 12MB/sec extraction performance

Assurance of evidence data integrity

- Supports write-protection of the evidence data
- Supports 10 hash algorithms such as MD5 and SHA256

Image files save with MD-NEXT

- Saves data as MDF image file with MD-NEXT software

MD-CableSuite

Package of custom-made JTAG FPCB cables to connect the mainboard of mobile phone manufactured by Samsung, LG, or others.

Product components

FPCB cable sets 7 EA

- ✓ Samsung phones 5 EA
- ✓ LG phones 2 EA

Screwdriver set 1 EA
Opening plastic knife 1 EA
USB charge cable 2EA

- ■ USB cable 24 Pin 1 EA
- ■ USB cable 20 Pin 1 EA

Cable bag set 1 EA
Warranty: 1 Year

Specification

Features

Easy connection without wiring for Samsung or LG phone models
Connection from the JTAG connector of board to MD-BOX probe connector

FPCB Cables for Phone Models

NO	FPCB Cable	Phone Model
1		SHW-M250L

2		SHW-M250K
3		SHV-E160L
4		SHV-E120S (SHV-E120L,SHV-E160S,K)
5		SHV-E110S
6		LG-LU6800(LG-SU760)
7		LG-LU6200

MD-CARRIER

JTAG/Chip-off tools set with portable aluminum suitcase for easy hand-carry

Product components & specification

No.	Description	Specification	Sets	Comments
1	Solder wire core	500g, With holder	1	
2	PCB Cleaner solution	300ml	1	Excluded in air freight
3	Soldering iron	High frequency	1	
4	Evidence storage box	14x14mm	2	
5	Solder Wick	1980.2.5	2	
6	Dispenser	180ml	1	
7	Flux	UP-78	1	
8	Wire 34	34AWG	2	
9	Phone tester	HIOKI	1	
10	Driver set1	7pcs	1	
11	Driver set2	6pcs	1	Precision use
12	Stripper	3500E	1	
13	Nipper	MN100	1	
14	Soldering tip	101-T-I	1	
15	Opener	Hera(White)	2	
16	Tweezer	OO-SA	1	
17	Flux brush	Series 2500	1	
18	Cleaning brush	196mm	1	
19	Work plate	ESD	1	
20	Carrier bag	Aluminum	1	
21	Key	Carrier Locker	1	

Warranty: 1 Year

Features

All kinds of tools for JTAG and Chip-off forensics
Dismantle/Reassembly, cleaning, soldering for JTAG connection
Movable to the onsite crime scene or remote office



MD-MR (MD-MR II)

Package of digital forensic hardware devices to detach memory from the mainboard of mobile phone or other digital device

MD-MR is the package of hardware devices to detach the memory from the board of mobile phone or digital device. When the device is severely broken, burnt, or drowned, MD-MR is used to prior to Chip-off forensics. MD-MR includes 5 flash memory sockets for MD-READER, heat blower, soldering station, fume extractor, microscope with optional components of mobile device dryer, rework system and mobile device safety box

Package basic components

5 flash memory sockets for MD-READER 1 SET
Heat blower for disassemble work 1 EA
Soldering Station 1 EA
Fume Extractor 1 EA
Microscope with lighting 1 EA
Digital Microscope for PCB inspection 1EA
Warranty: 1 Year

› 5 flash memory sockets | › Heat blower for dissemble work | › Soldering Station | › Fume Extractor | › Microscope | › Digital microscope with HDMI/USB

Package option components (MD-MR II)

Rework station 1 EA (Option)
Mobile device dryer 1 EA (Option)
Mobile device safety box 1 EA (Option)
Warranty: 1 Year

› Rework station | › Mobile device dryer | › Mobile device Safety Box

Specification

Product Highlights

- *Essential devices for manual memory removal*
- *Optional automatic rework machine, mobile device dryer and safety box*

MD-MR Standard devices

5 flash eMMC/eMCP memory sockets for MD-READER

- 5 types of sockets
- ECMP/EMMC memory sockets

Heat blower

- Heat blower for dissemble work(GHG20-63)
- Power Consumption: 2000W
- Voltage: 220V
- Heat Range: 50~630 degree
- Max Airflow: 150/300/500 l/m,
- Size: 245mm x 201mm
- Weight: 0.65kg

Soldering station

- Soldering station for manual soldering(EHF-4100N)
- Rated Voltage: 200V / 60Hz
- Output Voltage: AC 36V, 400kHz
- Power Consumption: 150W
- Range of Heat: 100~150 degree
- Size: 166x100x150mm (soldering iron excluded)
- Weight: 3.5kg
- Additional Tip S/N: 200T-5KF

Fume extractor

- Fume extractor for soldering work(UPC-260)
- Static Pressure: 32mmAq
- Airflow: 10CMM
- Output Voltage: 0.21W
- Noise: 55±2dB
- Size: 360mmX525mm
- Quantity of Arms: 1
- Weight: 15kg

Microscope

- Microscope - Zoom Stereo(SZMN45-MST1)
- Details: Lighting equipment
- Magnification: Zoom Stereo, 3.5~180X

Digital microscope

- Digital microscope with HDMI/USB for PCB inspection(KOB-340)
- Details: LED light, Steel Stand, HDMI/USB connector
- SD memory card, Snapshot of photo, Aluminum
- Case
- Number of Pixels: 3M pixel
- Magnification: 10~200X

- Size: 185mm(L)X33mm(R)

MD-MR Optional devices

Rework Station

- Rework station for small PCB (BK-200S)
- Optimized for mobile phone rework
- Hardware Specification

  Language: English

  PCB work size: 357mm * 152mm

  PCB workable size: Max 200m(W*D)

  Nozzle Spec.
  - 12 x 12
  - 19 x 19
  - 18 x 28
  - 23 x 23
  - 22 x 32
  - 28 x 28

  Heating Capacity: 800W

  Program Storage Capacity: 9 programs(3step)

  Rated Voltage: AC 200~240V, 50/60Hz

  Max Voltage: 1600W

  Max Current: 7A

  Equipment size: (L)380mm X (W)230mm X (H)260mm

  Equipment weight: 7 Kg

  Origin: Made in Korea

Mobile device and PCB Dryer

- Dryer for PCB board and small digital device (RG-202)
- Convective drying maintains stable temperature inside
- Safe circuit to prevent the override of heater
- Hardware Specification

  Model: RG-202

  Power: AC220V/50~60Hz

  Max Watts: 350W

  Max Current: 1.6A

  Size of outside: (W)200mm x (D)430mm x (H)380mm

  Size of inside: (W)160mm x (D)310mm X (H)250mm

  Weight: Approx. 10kg

Mobile device Safety Box

- Mobile device storage for smartphone and tablet
- Battery charge during storage
- Sterilization
- Digital locking system
- Hardware Specification

  UV lamp sterilizer with UV and Anion & battery charging for Cell Phone

  Max storage capacity : 68 units of Smartphone

  Max chargeable numbers : 40 units

Protecting from disease germ of smartphone
Powerful secure locking with key
Korea Testing Certification
Certificated from Director General of National Radio Research Agency
Standard Size:1,105 X 500 X 200 mm
Weight : 40kg

MD-RUGGED

Mobile forensic rugged package of MD-NEXT/MD-RED for the frontline investigators

MD-RUGGED supports the professional investigation on-site. Data can be extracted and analyzed with MD-RUGGED at the crime scene

Package components

Rugged Carrier 1 EA
MD-NEXT/MD-RED Bundle Installation Software (USB/Online)
USB Dongle Key 1EA
High-Performance Laptop 1 EA
5 Types of smartphone cables (5, 8, 20, 30, C-typed pin)
HD External Camera 1 EA
External SSD 1 EA
External HDD 1 EA
SD Reader 1EA
USIM Reader 1EA, Empty USIM card for Clone 3 EA
USB Hub 1 EA
MD-PLUG 1EA (MD-NEXT v2.0 or later versions)
Portable Printer 1 EA (option)
Warranty 1 Year

Laptop Specification

OS : Windows 7/8/10 (64 bit)
CPU : i7 or faster
RAM : 16GB or above
SSD : 1TB or more
Display : 1920x1080 or higher
External GPU card : Nvidia RTX series
USB : 2 or more USB 2.0/3.0/3.1 ports

Specification

Product Highlights

- *MD-NEXT/MD-RED Pre-installed laptop*
- *All-in-one mobile forensic package for the investigation at the field*
- *Customizable package components*

Key Features

Supports data extraction at laboratory level

- Supports all logical and physical extraction capabilities at the field

Supports temporary command center

- Workable as a mobile forensic control tower at the very spot where the accident took place

External camera for Chain of Custody

- Photographing evidence and recording of investigation process with external camera

Supports all the necessary forensic accessories

- USB cable, SD reader, USIM reader, USB hub, External camera, and External HDD

MD-RUGGED for Drone

Drone forensic rugged package of MD-DRONE for the frontline investigators

MD-RUGGED for Drone supports the professional investigation on-site. Data can be extracted and analyzed with MD-RUGGED for Drone at the field.

Package components

Rugged Carrier 1 EA
MD-DRONE Installation Software (USB/Online)
USB Dongle Key 1EA
High-Performance Laptop 1 EA
4 Types of cables (USB-A, USB-C, Micro USB, Thunderbolt4)
HD External Camera 1 EA
External SSD 1 EA
Write-Blocked SD Reader 1 EA
USB Hub 1 EA
MD-READER 1 EA with 2 EMMC sockets
Faraday bags 2 EA
LiPo bag 1 EA
iFixit Electric tool kit 1 EA
Warranty 1 Year

Laptop Specification

OS : Windows 8/10/11 (64bit)
CPU : i7 or faster
RAM : 16GB or above
SSD : 1TB or more
Display : 1920x1080 or higher
USB : 2 or more USB 2.0/3.0/3.1 ports
External GPU card : Nvidia RTX series

Specification

Product Highlights

- *MD-DRONE Pre-installed laptop*
- *All-in-one drone forensic package for the investigation at the field*
- *Customizable package components*

Key Features

Supports data extraction at laboratory level

- Supports logical and physical extraction capabilities at the field

Supports temporary command center

- Workable as a mobile forensic control tower at the very spot where the accident took place

External camera for Chain of Custody

- Photographing evidence and recording of investigation process with external camera

Supports all the necessary forensic accessories

- USB cables, MD-READER, SD reader, USB hub, External camera, External SSD, Toolkit, LiPo Bag

MD-PORTABLE

Mobile forensic portable package with MD-LIVE for the first responder or triage at the crime scene

MD-PORTABLE supports to quickly respond to the field request by faster and selective collection of the evidence data using MD-LIVE. Triage of mobile evidence and selective acquisition without privacy disclosure can be available with MD-LIVE

Package components

Portable Carrier 1 EA
MD-LIVE Installation Software (USB/Online)
USB Dongle Key 1EA
Touch Tablet 1 EA
5 Types of smartphone cables (5, 8, 20, 30, C-typed pin)
External SSD 1 EA
MD-CAMERA (HD External Camera) 1 EA
HDMI Capture board 1 EA
Portable Printer 1 EA (option)
Warranty 1 Year

Tablet Specification

OS: Windows 7/8/10 64bit
CPU : i5 or faster
RAM : 8GB
SSD : 512GB
Display : 1024x768 or higher
USB : 1 or more USB 2.0/3.0/3.1 ports

Specification

Product Highlights

- *MD-LIVE Pre-installed tablet*
- *Live mobile forensic package for the investigation at the field*
- *Customizable package components*

Key Features

Portable mobile live forensic tool for on-site use

- Portable tablet with MD-LIVE software supports rapid response on site and data acquisition on the move

Supports faster and secured forensic process

- Fast acquisition of selective data using MD-LIVE to secure privacy of phone owner

Mirroring and remote control of smartphone display - Android phones

- Smartphone screen mirroring and remote control can be used when smartphone display is broken or the prevention of unwanted operation on the phone.
- Mirrored screen can be captured and recorded also as an evidence

Recording of smartphone display by HDMI Capture board - iOS/Android Phones

- Captured smartphone screen can be taken photos and recorded also as an evidence

Recording of evidence and display by MD-CAMERA - All evidence devices

- MD-CAMERA can take photo or record the video of evidence and its display screen

Recording of MD-LIVE software screen

- PC screen of MD-LIVE recording to reproduce and verify its forensic process

Recording forensics process of for Chain of Custody

- Photographing evidence and recording of investigation process with MD-CAMERA (HD external camera) for Chain of Custody

Supports all the necessary live forensic accessories

- USB cables, HD External camera(MD-CAMERA), HDMI Capture board, Tablet, Portable carrier

MD-POUCH for Mobile Forensics

Product components

Soft Case for Hand Carry – Compact Travel Cable Organizer
- ✓ Dimension: 28'' x 20'' x 4''
- ✓ Weight: 0.16 Kg
- ✓ 7 compartments and 3 loops to store cables, memory readers, and portable storages

3-in-2 Data Transmission Cable 1 EA
- ✓ Material: Aluminum Alloy + TPE + High-destiny nylon braided wire
- ✓ Color: Black, Length: 1.2m
- ✓ Output current: C Type - 6A(Max.) / Lightning 8 Pin – 2.4A(Max.) / Micro 5 Pin – 2A(Max.)
- ✓ Suitable for Lightning + Micro 5/8 Pin + USB-A/C interface devices

C to C Cable 1 EA
- ✓ Color: White, Length: 1.2m

30 pin cable 2 EA
- 30 pin cable for iOS (White)
- 30 pin cable for Android (Black)

SD Memory Card – 64GB Micro SD Card 1EA
- ✓ Speed: Up to 130MB/s read
- ✓ Compatibility: Class V10, UHS-I U1
- ✓ Full-Size SD Adapter included
- ✓ Usage: Extraction or storage of data

USB HUB + SD Reader 1 EA
- ✓ 3 USB Ports: USB 3.0
- ✓ 1 SD/MMC Reader Slot, 1 MS/MSPRO Slot, 1 CF/MD Slot, 1 MicroSD Slot
- ✓ Full-Size SD Adapter included
- ✓ Suitable for USB-A/C interface devices

External HDD 1 EA with MD-Series Software & Data
- ✓ 500GB HDD
- ✓ 3 USB Ports: USB 3.0
- ✓ 1 SD/MMC Reader Slot, 1 MS/MSPRO Slot, 1 CF/MD Slot, 1 MicroSD Slot
- ✓ Full-Size SD Adapter included
- ✓ Suitable for USB-A/C interface devices

USB Dongles for License (Numbers by offered license)
- ✓ RAM: 112Bytes
- ✓ ROM: 112Bytes
- ✓ Maximum Licensed Features: 11~39
- ✓ Size(mm): 40.5” x 16” x 8”

USB Dongle Case with Dongle neckless (Numbers by offered license)

SIM-Sized Smart Card Reader 1EA
- ✓ ISO-7816 Class A, B and C(5V, 3V, 1.8V) cards
- ✓ Microprocessor cards with T=0 or T=1 protocol
- ✓ Speed: [Read/Write] Up to 600,000bps/s
- ✓ Certification: PC/SC, CCID, Microsoft WHQL, EMV2000 Level1, CE, FCC, RoHS, PBOC

- ✓ Supported OS: Windows®, Linux®, MAC OS®, Android™, Solaris

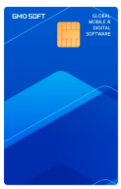
USIM Adapter – SIM Card Adapter Kit

- ✓ Convert a NANO SIM CARD into a MICRO SIM or a STANDARD SIM CARD, and a MICRO SIM CARD into a STANDARD SIM CARD size
- ✓ 1 tray for Nano to Micro
- ✓ 1 tray for Nano to Standard
- ✓ 1 tray for Micro to Standard SIM card
- ✓ 1 steel eject pin

Empty USIM card for Clone 3 EA

Specification

NO	Image	Item
1		Soft Case for Hand Carry
2		3-in-2 Data Transmission Cable
3		C to C Cable
4		30 pin cable for iOS (White) 30 pin cable for Android (Black)
5		SD Memory Card

6		USB HUB + SD Reader
7		External HDD with MD-Series Software & Data
8		USB Dongle for License
9		Dongle Case with Dongle Necklace
10		SIM-Sized Smart Card Reader
11		USIM Adaptor
12		Empty SIM Card

MD-POUCH for Video Forensics

Product components

Soft Case for Hand Carry – Compact Travel Cable Organizer
- ✓ Dimension: 28'' x 20'' x 4''
- ✓ Weight: 0.16 Kg
- ✓ 7 compartments and 3 loops to store cables, memory readers, and portable storages

3-in-2 Data Transmission Cable 1 EA
- ✓ Material: Aluminum Alloy + TPE + High-destiny nylon braided wire
- ✓ Color: Black, Length: 1.2m
- ✓ Output current: C Type - 6A(Max.) / Lightning 8 Pin – 2.4A(Max.) / Micro 5 Pin – 2A(Max.)
- ✓ Suitable for Lightning + Micro 5/8 Pin + USB-A/C interface devices

SD Memory Card – 64GB Micro SD Card
- ✓ Speed: [Read] Up to 130MB/s
- ✓ Compatibility: Class V10, UHS-I U1
- ✓ Full-Size SD Adapter included
- ✓ Usage: Extraction or storage of data

HDD Adapter - SATA/IDE to USB 3.0 Adapter
- ✓ Supports : 2.5”/3.5” SATA/IDE HDD/SSD
- ✓ Maximum 8TB available
- ✓ 12V Power supply

USB HUB + SD Reader 1 EA
- ✓ 3 USB Ports: USB 3.0
- ✓ 1 SD/MMC Reader Slot, 1 MS/MSPRO Slot, 1 CF/MD Slot, 1 MicroSD Slot
- ✓ Full-Size SD Adapter included
- ✓ Suitable for USB-A/C interface devices

External HDD with MD-Series Software & Data
- ✓ 3 USB Ports: USB 3.0
- ✓ 1 SD/MMC Reader Slot, 1 MS/MSPRO Slot, 1 CF/MD Slot, 1 MicroSD Slot
- ✓ Full-Size SD Adapter included
- ✓ Suitable for USB-A/C interface devices

USB Dongle for License
- ✓ RAM: 112Bytes
- ✓ ROM: 112Bytes
- ✓ Maximum Licensed Features: 11~39
- ✓ Size(mm): 40.5” x 16” x 8”

USB Dongle Case

USIM Adapter – SIM Card Adapter Kit
- ✓ Convert a NANO SIM CARD into a MICRO SIM or a STANDARD SIM CARD, and a MICRO SIM CARD into a STANDARD SIM CARD size
- ✓ 1 tray for Nano to Micro
- ✓ 1 tray for Nano to Standard
- ✓ 1 tray for Micro to Standard SIM card
- ✓ 1 steel eject pin

Specification

NO	Image	Item
1		Soft Case for Hand Carry
2		3-in-2 Data Transmission Cable
3		SD Memory Card
4		USB HUB + SD Reader
5		External HDD with MD-Series Software & Data
6		HDD Adaptor

7		USB Dongle for License
8		Dongle Case with Dongle Necklace

MD-PLUG

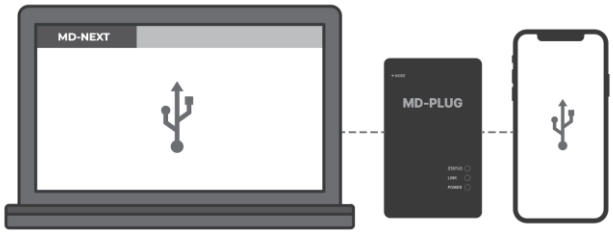
MD-PLUG is mobile forensics accessory hardware exclusively working with MD-NEXT v2.0 or later versions to assist the chipset based FFS extraction or other new advanced extraction methods to be released.

- Supports secure communication and data transfer between MD-NEXT and target device
- Provides stable and unified connection environment between target device with MD-NEXT
- One USB port for target device and one USB port for MD-NEXT installed PC
- Used for new chipset based FFS extraction and new advanced extraction methods
- Support for FFS extraction on 170 models of Exynos and MediaTek chipset phones

Package components

MD-PLUG 1 EA
Case with user guide 1 EA
Warranty 1 Year

Hardware Specification

Model Name	MDP-1000	
Size and Weight	Size	L x W x H (13 x 53 x 85mm)
	Weight	44g
Physical Configuration	Connect MP-PLUG and PC with USB cable Plug-in MD-PLUG USB-C male port into smartphone's USB-C female port 	
USB specification	USB 3.0, USB-C Female Port 1EA, USB-C Male Port 1EA	
Power	5V, 900mA, 4.5W	
Working temperature	0~60 ℃	
LEDs	Status – White/Yellow/Blue/Red/Purple Link - Green Power - Red	
Certification	KC, CE, FCC, RoHS Compliant	
Manufacturer	GMDSOFT Inc. / Made in Korea	

Picture	 MODE MD-PLUG STATUS LINK POWER GMD SOFT MODEL MDP-1000 S/N www.gmdsoft.com Made in Korea

MD-CAMERA

External HD grade standing camera for recording investigation support

MD-CAMERA supports to record video or to take photos of the evidence device or display of device combined with MD-LIVE. For the recording of investigation procedure or of evidence status to keep the chain of custody, MD-CAMERA can be used as an external camera device independently in all MD-Series.

Package components

Camera with body stand 1 EA
Attached USB cable (4.90ft/150cm) 1 EA
Plastic cover to prevent light reflection 1EA
Warranty 1 Year

Hardware Specification

Size and Weight	Size	L x W x H (when folded) 10.91” x 3.07” x 1.89” (277 x 78 x 48mm)
	Weight	581g(1.28lbs)
Camera	8.0 Megapixel Full autofocus lens Ultra-high-definition resolutions up to 3264 x 2448 Up to 30fps live video capture (at full HD)	
Microphone	Built-in microphone	
Output	USB 2.0 Video Class (UVC) interface	
Max Shooting Area	13.46’ x 10.04’ (342 x 255mm)	
Compatibility	Works with Mac, PC and Chromebook	
Package Contents	V4K document camera with attached USB cable (4.90ft/150cm)	
Picture	 	

Specification

Product Highlights

- *Supports video/audio recording investigation of target phone evidence or its display by interworking with MD-LIVE*
- *Supports video/audio recording of forensics procedure for chain of custody while using MD-Series*
- *8.0 mega pixel and full autofocus lens with UHD resolution display, Max. 30FPS video capture*
- *Built-in microphone for audio recording*
- *USB2.0 connection to PC installed with MD-Series*

Key Camera Features

8MP Camera captures ultra-high definition images

- Camera captures high-definition resolutions up to 3264 x 2448

High frame rate at high resolutions for smooth live streaming

- Enable to stream at up to 30fps at full HD, or 15fps at the highest resolution of 3264 x 2448

Enhanced performance in dimly light environments

- Sony CMOS image sensor provides exceptional noise reduction and color reproduction in dimly light surrounding. It won't get distorted colors or pixelated images in darkened classrooms or conference rooms

Fast focusing speed, minimal interruptions

- Fast focusing speed minimizes interruptions when you are switching between different materials at high resolutions

Newly designed multi-jointed stand

- Added a bolt to each of the connecting joints that user can tighten simply by turning the respective bolt clockwise with a coin

Built-in microphone

Video with Audio can be recorded using built-in microphone beside the camera lens

MD-ACADEMY

Complete set of mobile forensic tools customized for education and training

MD-ACADEMY is the complete set of mobile forensic tools customized for mobile forensic education.
MD-ACADEMY is composed of the test materials and the academic version of MD-NEXT, MD-RED for in-depth mobile forensic training and education of the latest mobile forensic technology

Package components

MD-ACADEMY Carrier for 10 user's package
MD-NEXT, MD-RED (Academic version)
USB Dongle Key
Sample USIM Card
Sample SD Card
SD Memory Reader with USB Hubs
USIM Reader
5 smartphone cables set (5, 8, 20, 30, C-typed pin)

*All items include 10 sets per user

Optional components

MD-READER demo set (MD-READER 1EA, 2 Sockets)
Sample Chip-off memory 2EA

Specification

Product Highlights

- *MD-NEXT, MD-RED Academic version*
- *License and materials set for users*
- *SD reader, USIM reader, Chip-off memory reader*
- *Customizable package components*
- *Chip-off reader, Textbook, and training Video as an option*

Key Features

Complete set of mobile forensic training

- Training material of manual, basic theory, and practice guide
- Academic version of MD-NEXT
- Academic version of MD-RED

Designed for mobile forensic practice

- Smartphone and memory samples, forensic readers, and guide video

Effective analysis using the provided sample data

- Provided sample data enable analysis training to be more effective

Customized package set for 10 users

- MD-ACADEMY package can be customizable by user numbers

TRAINING & CERTIFICATION

Maximize your skills, knowledge, and mobile & digital forensic capabilities with GMDSOFT

Our certification consists of three courses: an elementary course for forensic professionals, an advanced-level course for forensic examiners and a professional course for forensic specialists. These courses cover everything about mobile & digital forensics including both software and hardware products.
All levels of users from beginners to experts can enhance their knowledge on mobile &digital forensics to the point of maximizing their skill, knowledge, and ability to conduct their work using MD-SERIES.

GCMP(G*MDSOFT* ***C****ertified* ***M****obile Forensic* ***P****rofessional)*

Certification will equip you with basic mobile forensic knowledge and teach you GMDSOFT's mobile forensic software in the data extraction and analysis. This is aimed at practitioners who are new to mobile forensics but have to use mobile forensics products for the real cases. Those who hold this certification are given the opportunity to advance their careers in the mobile forensic industry

Course Objectives

- Day 1
  - Basics of mobile forensics I
  - Mobile forensic extraction with MD-NEXT
- Day 2
  - Basics of mobile forensics II
  - Mobile forensic analysis with MD-RED
- Day 3
  - Hands-on practice with MD-NEXT/RED for Android/iPhone extraction
  - WhatsApp analysis and Relation analysis

Optional Course

- Day 1 - Onsite mobile forensics and Cloud forensics; MD-LIVE, MD-CLOUD
- Day 1 - Video forensics with MD-VIDEO AI
- Day 1 - Drone forensics with MD-DRONE

GCDP(GMDSOFT Certified Digital Forensic Professional)

Certification will equip you with basic digital forensic knowledge and teach you GMDSOFT's digital forensic software in the data extraction and analysis. This is aimed at special digital forensics investigators who have the mission to operate video and drone forensics. Those who hold this certification are given the opportunity to advance their careers in the digital forensic industry.

Course Objectives

- Day 1
  - Basic theory of video forensics
  - Practice with MD-VIDEO AI on recovery
  - AI analysis and enhancement
- Day 2
  - Fundamentals of drone forensics
  - Practice with MD-DRONE on the extraction of flight log & multimedia data
  - Analysis of drone flight

GCME(GMDSOFT Certified Mobile Forensic Examiner)

It is designed to train mobile forensic examiners in the use of MD-NEXT/RED extraction & analysis software product. This certification course deals with high level mobile forensic extraction analysis technique; mobile forensic extraction theory and deep skills and practical analysis of messengers and by subjects or case studies. GCME certification certifies that an examiner is equipped with a vast depth of understanding and expertise in the use of our total mobile forensic tools and technology.

Course Objectives

- Day 1
  - Messenger App Analysis
  - WhatsApp, WeChat, Facebook Messenger, Telegram Analysis
- Day 2
  - Mobile Device Extraction in depth
  - Android, iOS, Media, Custom extraction
  - Additional extraction features
- Day 3
  - Device information Analysis
  - Filesystem and Time Analysis
  - Multimedia Analysis
  - Recycle Bin Analysis
- Day 4
  - Anti-Forensics
  - Case Study: Data Breach
  - Case Study: Message Manipulation

Optional Course

Physical extraction course

- Day 1 - JTAG forensics (MD-BOX & MD-CARRIER)
- Day 2 - Chip-off forensics (MD-READER & MD-MR)

*GCMS(GMDSOFT **C**ertified **M**obile Forensic **S**pecialist**)***

When the examiner has successfully completed two certification courses of GCMP and GCME, it certifies that the examiner has mastered in-depth mobile forensic investigative technique using MD-SERIES. Furthermore, to be recognized by investigative agencies as a skilled specialist in the mobile forensic sector, an examiner can get the higher-level course of advanced analysis technologies including user-defined analysis course based on python scripting.

Course Objectives

- Day 1 – SQLite Forensics
- Day 2 – SQLite & Filesystem Forensics
- Day 3 – Filesystem Forensics
- Day 4 – Advanced Analysis Theory

Optional Course

- Day 1 – Machine Learning and AI in Video forensics
- Day 1 – Understanding Multimedia
- Day 1 – Advanced Mobile O/S

GMDSOFT Recertification

The GMDSOFT Certification itself is valid for two years from the date of issue. All GMDSOFT certifications must be renewed by its expiration date to remain valid. It is the responsibility of the GMDSOFT certificants to complete recertification requirements.

Recertification course will bring certificants up-to-speed with the latest developments, functions, changes, and updates in the MD-Series. This ensures that all students' knowledge is current and relevant for the latest versions of the tool. To earn recertification, certificants must pass the exam at the end of the course.

If the certificate has expired, the certification holder must apply for and successfully complete the GCMP, GCME, or GCMS recertification course within twelve (12) months of the certification's expiration date to maintain their certification.

Mobile & Digital Forensic Service

GMDSOFT provides one-stop forensic service for law firm, audit, and eDiscovery corporation.
It's comprehensive mobile and digital forensic service which includes evidence data acquisition from smartphone, tablet, PC, CCTV/DVR, drone, car, IoT device, cloud service and data analysis on various mobile data, apps, video, audio, documents and so on. Data analysis report and investigation consulting service are also available to the specific client's inquiry.

Service Highlights

- One-stop mobile and digital forensic service
- Diagnose evidence and process unlock
- Data extraction and analysis
- Generate data analysis report
- Provides consulting service according to client's inquiry
- Provides reliable cooperative investigation service with GMDSOFT's professional forensic researchers and engineers.

Key Services

One-stop mobile and digital forensic service

- A comprehensive forensic service that provides total forensic solution. It provides evidence data acquisition, data analysis from a wide range of mobile and digital devices and analysis report including entire process recording for chain of custody.

Unlock service & Data extraction

- Data extraction service including screen unlock and decryption for encrypted data partition from smartphone, tablet, PC, CCTV/DVR, drone, car, IoT device and cloud service. It also warrants the integrity of all extracted evidence data.

Data analysis & Analysis report

- Analysis of extracted data, data recovery, decrypt encrypted data and provide analysis reports.

Forensic investigation support service

- Provides total forensic investigation service according to specific client's inquiry.

Legal advisory service for forensic investigation

- Being in partnership with law firms, we provide legal advice on security audit and all the consulting service related to forensic investigation.

Customized service for legal and compliance cases

- Provides customized forensic service package according to each client's requirement including corporate audit, corruption investigation and an eDiscovery forensics.

Digital Forensic Lab Solution

Fully equipped digital forensic laboratory solution for forensic investigators to handle huge variety of different mobile device safe and efficiently

Our digital forensic lab is equipped with all needed tools and hardware to analyze, identify, preserve, recover, and present facts and opinions about the information at hand efficiently. Digital forensic laboratory supports investigator to handle huge variety of different mobile and digital device with reliable and efficient solutions. It will help your team to analyze evidence in the most efficient way and forensically sound manner.

Physical rework desk

- MD-READER/MD-BOX Hardware
- MD-MR package
- MD-CARRIER package
- MD-Cable Suite for JTAG connection
- USIM reader, SD reader
- Air ventilation for soldering work

Data extraction work desk

- MD-NEXT/MD-LIVE/MD-DRONE Software
- Workstation/Laptop/Tablet
- Video recording system
- Lighting system
- Cables set

Data analysis work desk

- MD-RED, MD-VIDEO AI, MD-CLOUD Software
- GPU Workstation/Workstation/Laptop
- NAS storage rack
- 10G network device

Digital device management

- Smartphone and tablet storage
- Disk storage
- Flash memory storage
- Accessories for smartphone - battery recharger, smartphone cable
- CCTV and door lock

Products Packing Details

Product		HS Code	Category	Dimension(cm) & Weight (NET)
MD-POUCH for NEXT/RED/LIVE/CLOUD MD-VIDEO AI/DRONE		8523.51-2010	Dongle key (without license) and install package in USB/HDD and with accessories in pouch (	20 x 15 x 6, 2.0Kg
MD-PLUG		8523.51-2010	Mobile forensics accessory hardware for MD-NEXT	22 x 19 x 5, 0.05Kg
MD-RED HYPER		8471.50-9000	Mobile forensics analysis workstation	80 x 65 x 40, 24Kg
MD-VIDEO HYPER		8471.50-9000	Video forensics analytics workstation	80 x 65 x 40, 24Kg
MD-BOX		8471.70-2090	Other Peripheral Storage Units	20 x 15 x 6, 7.8Kg
MD-READER		8471.70-2090	Other Peripheral Storage Units	20 x 15 x 6, 8.8Kg
MD-CARRIER		8468.80-0000	Machinery for Soldering	56 x 36 x 46, 15.0Kg
MD-Cable Suite		8473.30-9090	Part of Automatic Data Processing Machines	33 x 26 x 8, 3.0Kg
MD-RUGGED		8473.30-9090	Mobile forensics rugged kits	61 x 45 x 25, 15.0Kg
MD-RUGGED for Drone		8473.30-9090	Drone forensics rugged kits	61 x 45 x 25, 15.0Kg
MD-PORTABLE		8473.30-9090	Mobile forensics portable kits	61 x 45 x 25, 12.0Kg
MD-MR II	Rework Station	8543.70-9090	Other Electrical Machines	44 x 47 x 63, 19.0Kg
	Mobile Phone Dryer	8419.39-9000	Dryers	20 x 43 x 38, 10.0Kg
	Extra Sockets	8473.30-9090	Part of Automatic Data Processing Machines	20 x 15 x 6, 2.0Kg
	Heat Blower	8543.70-9090	Other Electrical Machines	34 x 28 x 20, 6.0Kg
	Fume Extractor	8421.39-9099	Filtering Apparatus for gases	59 x 40 x 60, 15.0Kg
	Microscope	9012.10-1090	Two Microscopes	36 x 26 x 39, 20 x 15 x 5 (2 cartons), 5.0Kg
	Soldering Set	8468.80-0000	Machinery for Soldering	25 x 23 x 13, 5.0Kg
	Phone Storage	8543.70-9090	Other Electrical Machines	50 x 20 x 115, 40Kg