

For intelligent investigation on mobile evidence

MD-SERIES

Total Mobile Forensics Solution HANCOMGMD



Mobile

Mobile forensics products for data extraction and analysis from any type of mobile device with integrated, cutting-edge mobile forensics technology.

SALES INQUIRY

5F, Hancom Tower, 49, Daewangpangyo-ro 644 beon-gil,
Bundang-gu, Seongnam-Si, Gyeonggi-do, Korea

Tel. +82.31.622.6111 Fax. +82.31.622.6112 e-mail sales@hancomgmd.com

www.hancomgmd.com



Mobile Forensics Expert Group

HANCOM GMD

BUSINESS AREA

HancomGMD covers all aspects of mobile forensics. HancomGMD provides services and training for the police, the military, prosecutors, investigators, corporate audit teams, and others in need of our services.



MD-Mobile Series
Mobile forensic products



MD-Forensic Service
Mobile forensic service



Academy & Certification
Mobile forensic training



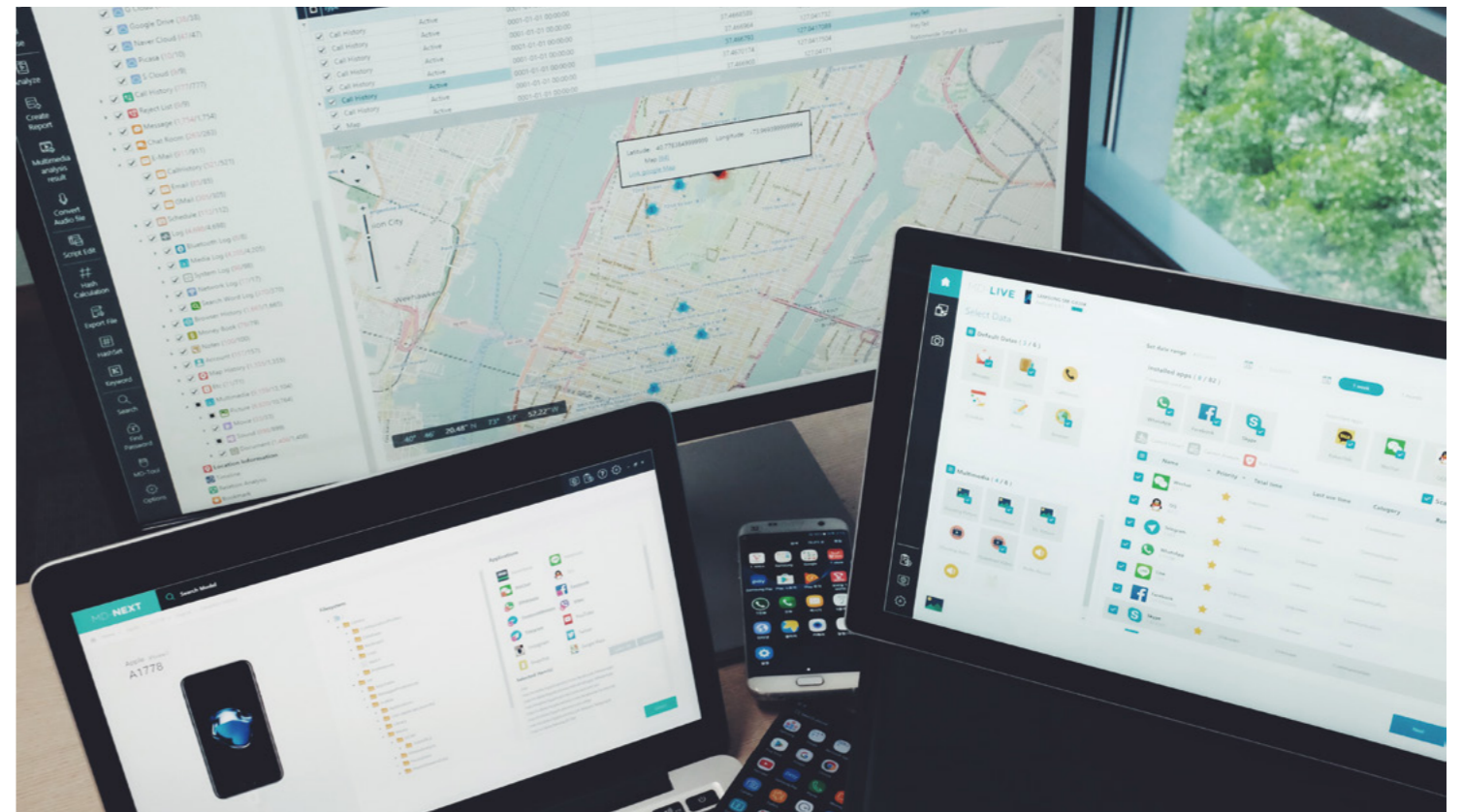
CORE COMPETENCE

HancomGMD, the technological leader in mobile forensics, has delivered its mobile forensics solution, MD-Series, to hundreds of investigation agencies throughout Asia since 2005.

- 24,000 phones** Annual mobile evidence service
- 15,000 models** Mobile phone models we support
- 750 apps** Supported Android, iOS applications
- 130 global agencies** Our customers
- 12 years** Research experience
- 8 patents** Patented innovative technology

Total Mobile Forensics Solution

MD-SERIES

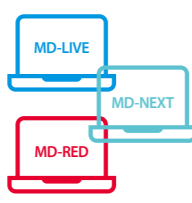
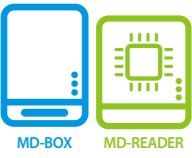
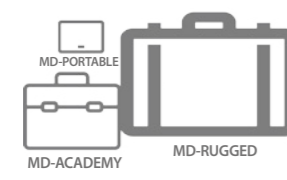


MD-Series is the professional mobile forensic solution used for investigating mobile hardware, OS and application data, which is developed by taking advantage of the patented technologies of HancomGMD.















MD-Series Mobile Forensics Products

Total mobile forensics product line for data extraction and analysis with integrated cutting-edge mobile forensic technology, supporting any type of mobile device.

 <p>Mobile Forensics Software</p>	<p>MD-LIVE Software for performing live data extraction and analysis on mobile devices with support for both smartphones and feature phones.</p> <p>MD-NEXT Mobile device data extraction software for smartphones, feature phones, USIM cards, SD memory cards, JTAG, and chip-off.</p> <p>MD-RED Mobile device data analysis software for data recovery, decryption, visualization and reporting on popular mobile apps.</p>
 <p>Mobile Forensics Hardware</p>	<p>MD-BOX JTAG reader hardware designed for JTAG extraction with MD-NEXT.</p> <p>MD-READER Chip-off flash memory reader designed for chip-off forensics with MD-NEXT.</p> <p>MD-MR Memory removal utilities including smartphone dryer, rework machine, and manual removal tools.</p>
 <p>Mobile Forensics Package</p>	<p>MD-RUGGED Portable mobile forensics package for investigators in the lab or in movable forensics centers.</p> <p>MD-PORTABLE Portable mobile forensics package for investigators in the field.</p> <p>MD-ACADEMY Academic mobile forensics for training investigators and students.</p>

Mobile Forensic Product Selection Guide

Device Type	Extraction HW	Extraction SW	Analysis SW
Smartphones Live data extraction and analysis in the field			
Mobile devices Physical, Logical extraction			
JTAG boards Phone board with JTAG interface			
Chip-Off memory Physically removed phone flash memory			
User type	Package		
Investigator at the crime scene MD-NEXT/MD-RED/ MD-LIVE Package with laptop, printer and cables			
First responder in the field or auditor MD-LIVE Package with tablet , camera and cables			
Trainees learning mobile forensics in an academy or forensic center MD-NEXT/MD-RED academic version with test accessories			

MD-LIVE

MD-LIVE is a forensic software application for live data extraction and analysis from smartphones and it can help the first responder to get evidence easily on the spot.

MD-LIVE is a mobile forensics product with an easy-to-use interface and supports logical extraction and quick data analysis. It also supports automatic smartphone detection, smartphone display mirroring, and connecting an external camera for capturing image and video evidence in the field.

System Requirements

OS : Windows 7/8/10(64bit)
CPU : i5 or above
RAM : 8GB or more
SSD : 256G or more
Display : 1024x768 or more
USB : USB 3.0 port 2 or higher
Microsoft .NET Framework 4.5

Product packages

MD-LIVE CD Box
USB Dongle key 1ea
Warranty: 1 year

Specification

Product Highlights

- Mobile forensics solution for on-the-spot investigation
- Screening and analysis features based on time period and frequency of use
- Minimize work time with each step using high-speed processes
- Recording and capturing features using the external camera function
- Simple and convenient usage with intuitive user interface

Key Features

Extraction and analysis of selected data

- Only data related to the incident can be selected and analyzed
- Minimization of unnecessary data extraction to protect the privacy of the suspect and reduce investigation time

Assurance of evidence data integrity

Hash calculation for ensuring the integrity of data and multimedia files used for analysis

Easy and concise process

Intuitive user interface and smartphone model auto-detection function which enables smooth, on-the-spot forensics with minimal training

Analysis UI provision similar to actual smartphone

Data identification improvement and screening capabilities by providing themes similar to smartphone environments during data analysis

Multimedia preview function

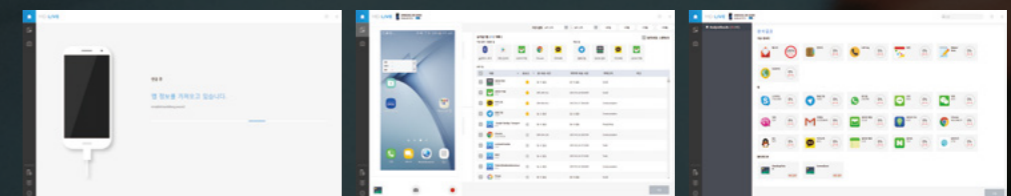
- Images, videos, documents preview in the smartphone
- Smartphone screen capturing with comments

Camera and Mirroring

Screen capturing through external camera and smartphone screen mirroring can be used when smartphone connection is not possible or during evidence collection

Analysis report creation function

- Ongoing video filming
- Provides summary of smartphone data, screen capture, multimedia, and application analysis results
- Report generation on selected evidence PDF file report and extracted data export (CD, DVD, USB)





MD-NEXT



MD-NEXT is a forensic software application for extracting data from mobile devices.

MD-NEXT is a forensic software application for extracting data from mobile devices. It supports physical and logical extraction methods for Android, iOS, Windows OS, Tizen OS and other smartphone operating systems. Chip-off flash memory with MD-READER, JTAG interface with MD-BOX, OS backup protocol, agent app and other cutting-edge extraction technology are integrated into MD-NEXT.

System Requirements

- OS : Windows 7/8/10
- CPU : i5 or above
- RAM : 4GB or more
- HDD : 1TB or more
- Display : 1024x768 or above
- USB : USB 2.0 port 2 or higher

Product packages

- MD-NEXT CD BOX
- USB Dongle Key 1 EA
- Monthly update license
- Warranty : 1 Year

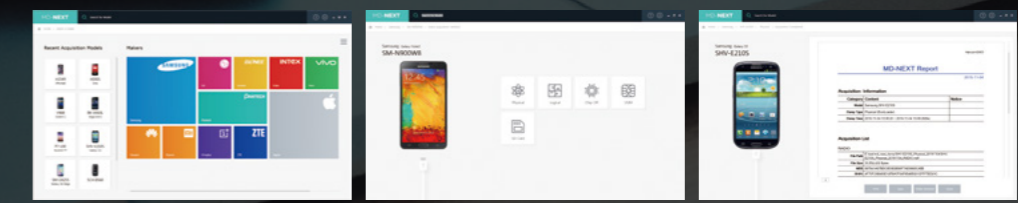
Specification

Product Highlights

- Extraction of chip-off memory, JTAG board
- Physical/Logical extraction of mobile device
- Extraction of selected partition
- Data preview during extraction
- Write protection and evidence integrity

Key Features

- Perfect data extraction tool for mobile phones**
 - Supports mobile device, mainboard with JTAG, USIM, memory Supports feature phones, smartphones
 - Used with forensic hardware, MD-BOX and MD-READER
- User-friendly and easy to use**
 - Intuitive user interface and quick extraction procedure
 - Online help documents with pictures and photos
- Excellent extraction performance**
 - Max. 1GB/min extraction performance
- Assurance of evidence data integrity**
 - Supports write-protection for every piece of evidence data
 - Supports more than 10 hash functions like MD5/SHA1
- Data preview**
 - Supports preview of the extraction data signatures HEX viewer and user data viewer
- Advanced extraction features**
 - Selects partitions after auto-scanning
 - Selects directories, files and categories to be extracted
 - Supports extraction pause and resume
- Auto-generation of reports**
 - Reports on the extracted image file information: Hash value, Time, Method, File name and etc. Supports XLS, PDF file formats



MD-RED



MD-RED is a forensic software application for the recovery, analysis and reporting of the extracted data from mobile devices.

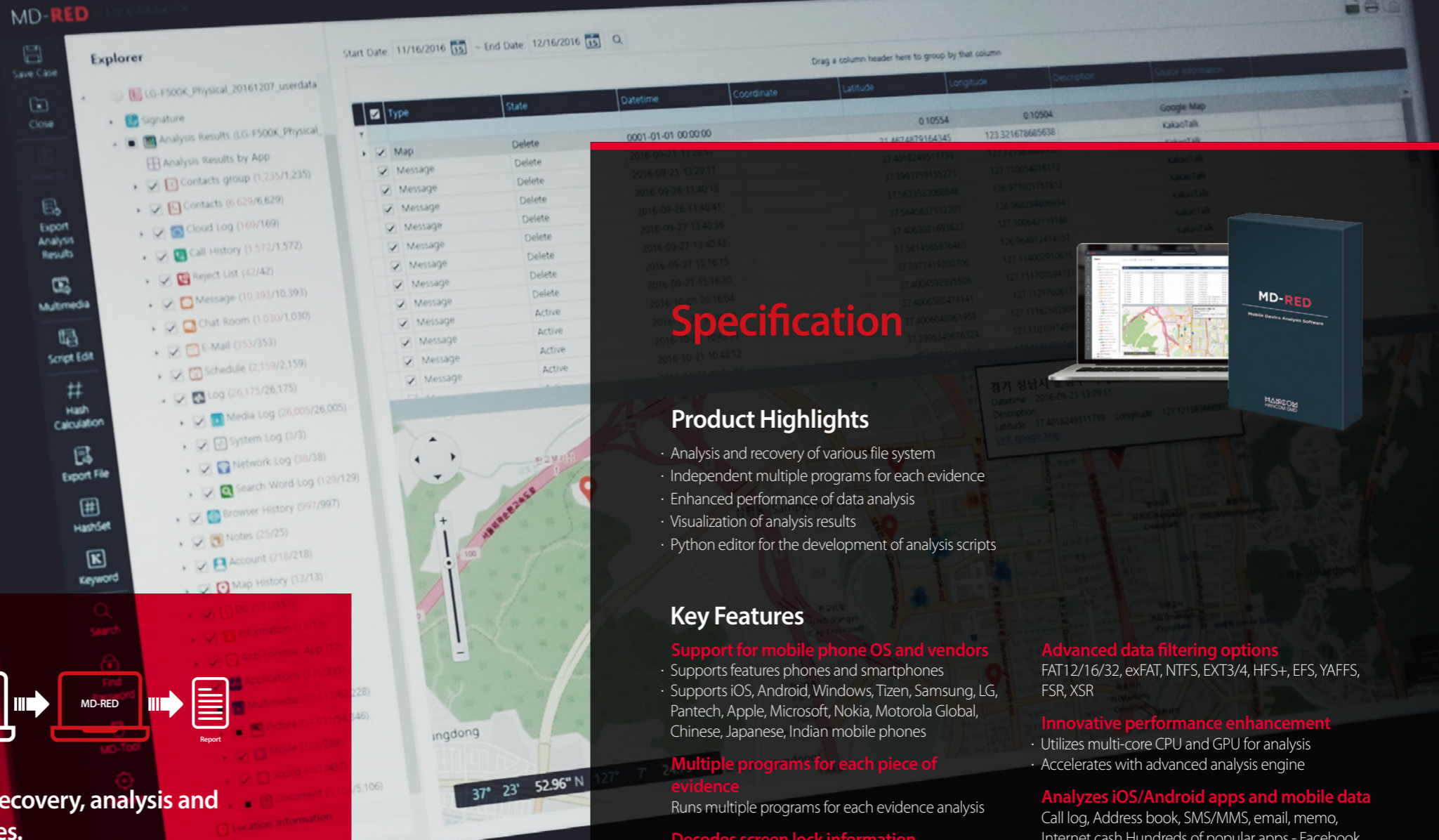
MD-RED is a forensic software application for the recovery, analysis and reporting of mobile data images extracted with MD-NEXT or other extraction tools. All analysis results are exported to forensic reports used for the investigation of crimes and accidents. Also, the analysis modules of latest mobile apps are quickly updated by continuous research.

System Requirements

- OS : Windows 7/8/10 64bit
- CPU : i7 or above
- RAM : 8GB or more
- HDD : 1TB or more
- Display : 1024x768 or above
- USB : USB 2.0 port 2 or higher

Product packages

- MD-RED CD BOX
- USB Dongle Key 1 EA
- Monthly update license
- Warranty : 1 Year



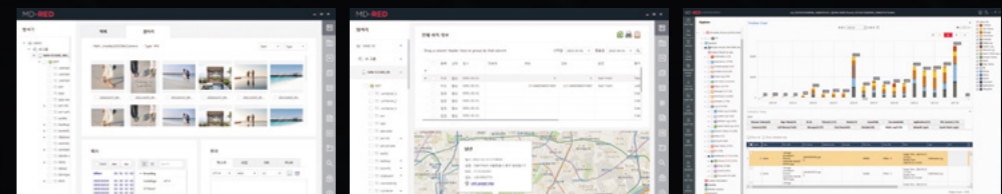
Specification

Product Highlights

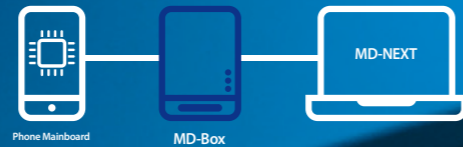
- Analysis and recovery of various file system
- Independent multiple programs for each evidence
- Enhanced performance of data analysis
- Visualization of analysis results
- Python editor for the development of analysis scripts

Key Features

- Support for mobile phone OS and vendors**
 - Supports features phones and smartphones
 - Supports iOS, Android, Windows, Tizen, Samsung, LG, Pantech, Apple, Microsoft, Nokia, Motorola Global, Chinese, Japanese, Indian mobile phones
- Advanced data filtering options**
 - FAT12/16/32, exFAT, NTFS, EXT3/4, HFS+, EFS, YAFFS, FSR, XSR
- Innovative performance enhancement**
 - Utilizes multi-core CPU and GPU for analysis
 - Accelerates with advanced analysis engine
- Multiple programs for each piece of evidence**
 - Runs multiple programs for each evidence analysis
- Decodes screen lock information**
 - Decodes Pattern, PIN and Password for unlocking
- Analyzes iOS/Android apps and mobile data**
 - Call log, Address book, SMS/MMS, email, memo, Internet cash Hundreds of popular apps - Facebook, Twitter, WhatsApp, Wechat
- Innovative performance enhancement**
 - Multi-core CPU based parallel analysis, advanced analysis engine
- Python editor for user-defined analysis scripts**
 - Supports Python script editor for advanced app analysis by expert users
- Decryption of encrypted app data**
 - Decrypts encrypted chat messages, emails, files and various app data
- Visualized analysis data**
 - Social relations, Timeline and GPS based Map
- Reports auto-generation**
 - File formats - XLS, PDF, ODS Customizable to customer requirements
- Various data viewers**
 - Viewers for SQLite database, HEX data, Plist, Text, Photo and movie gallery



MD-BOX



MD-BOX is a piece of forensic hardware for extracting data directly from the motherboard of a mobile device using the JTAG interface.

MD-BOX is a piece of forensic hardware for extracting data directly from the motherboard using the JTAG interface. When a mobile device has suffered external damage but the motherboard still works, an examiner can connect the motherboard to MD-BOX through its JTAG interface. Then, the data can be acquired with JTAG via the JTAG extraction function in MD-NEXT.

Hardware Specification

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

Product packages

MD-BOX Hardware
 Probe connector 1 EA
 Power adapter 1 EA
 USB cable 1 EA
 Warranty : 1 Year
 Carrier Box (Option)
 Cable Suite (Option)

Specification

Product Highlights

- Physical extraction via the motherboard with JTAG
- Applicable to damaged mobile devices
- Write protection and evidence integrity
- Data image file save with MD-NEXT
- Faster than general JTAG debugger

Key Features

Data extractor from the board with JTAG

Forensic hardware for reading data directly from the mainboard of mobile devices 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 the extraction halted

Assurance of evidence data integrity

- Supports write-protection of the evidence data
- Supports more than 10 hash functions like MD5/SHA256

Image file save with MD-NEXT

Reading of the extracted data and saving the image file with MD-NEXT software.

Mobile CPU support

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

Excellent extraction performance

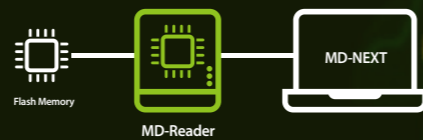
Max. 1MB/sec extraction performance

JTAG cables support

- Supports FPCB connector cable sets, MD-Cable Suite
- Supports manual connection to the mainboard



MD-READER



MD-READER is a piece of forensic hardware for extracting data directly from the memory chip detached from the mainboard of mobile phone.

MD-READER is a piece of forensic hardware for extracting data from chip-off memory. After detaching the memory chip from the board manually or with a rework machine, the examiner can mount it into the one of the memory sockets included. Then, the data extraction can be done at Chip-Off menu in MD-NEXT program.

Hardware Specification

CPU : Samsung S5PV210
 RAM : DDR256M
 Memory : NAND 512M
 Input Voltage : DC 5V
 Size : 110 x 140 x 35 mm

Product packages

MD-READER hardware
 5 Memory sockets
 Power adapter 1 EA
 USB cable 1 EA
 Warranty : 1 Year

Specification

Product Highlights

- Applicable to the heavily damaged phones
- Data extraction for chip-off memory
- Data image file save with MD-NEXT
- Excellent extraction performance
- Write protection and evidence integrity



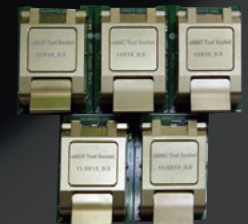
Key Features

Data reader for chip-off memory

Even when mobile phones are heavily damaged by fire, water or external shock, Internal flash memory may store the evidence data soundly. After being detached from the board, flash memory can be read with MD-READER

Support for eMMC, eMCP NAND flash memory

- | | |
|--|---|
| 3 types of eMMC Memory sockets <ul style="list-style-type: none"> · eMMC socket – 14x18x0.5 mm · eMMC socket – 12x16x0.5 mm · eMMC socket – 11.5x13x0.5 mm | 2 types of eMCP Memory sockets <ul style="list-style-type: none"> · MCP socket – 12x16x0.5 mm · eMCP socket – 11.5x13x0.5 mm |
|--|---|



Excellent extraction performance

Max. 12MB/sec extraction performance

Assurance of evidence data integrity

- Supports write-protection of the evidence data
- Supports 10 more hash functions like MD5/SHA256

Selected partition data extraction

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

Image file save with MD-NEXT

Reading of the extracted data and saving the image file with MD-NEXT software



MD-MR (Memory Removal)

MD-MR (Memory Removal) is a package of forensic hardware devices for detaching the memory chip from the motherboard of a mobile phone.

MD-MR is a package of forensic hardware devices for detaching the memory from the motherboard of a mobile phone.

When a mobile device is severely broken or submerged in liquid, MD-MR is used to attempt Chip-off forensics. MD-MR includes mobile dryer, hot plate, rework system, microscope, BGA reballing kit, and general flash memory reader.

Product packages

- General memory chip reader
- Heat blower for the general disassemble work
- BGA Reballing kit
- Hot plate for reballing
- Microscope - Zoom Stereo, 3.5X~180X
- Rework station: BK-350S (Option)
- Mobile phone dryer: RG-202 (Option)
- Warranty : 1 year



Specification

Product Highlights

- Manual rework devices for memory removal
- Optional automatic rework machine and phone dryer



MD-MR Standard devices



MD-MR Optional devices

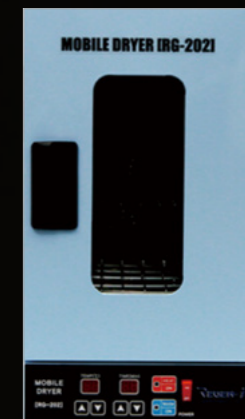
Rework Station

- Rework station for small PCB
- Rework that optimized for mobile phones.



Mobile phone Dryer

- Convective drying, maintains stable temperature inside.
- Safe circuit to prevent the override of heater



MD-RUGGED

Mobile forensic package for on-site investigation at the crime scene or movable forensic center.

MD-RUGGED serves as an analytical laboratory to make it possible for investigators to probe into cases on-site. Data can be extracted physically and logically.

Product packages

- Rugged Carrier
- MD-NEXT,MD-RED, MD-LIVE pre-installed Laptop
- 5 Smartphone cables (8,5,30,C-typed, 20) PIN
- 10 Feature phone USB Cables
- HD camera
- SD Reader, USIM Reader
- Supplementary battery

- USB HUB
- External HDD(for WeChat analysis)
- Confiscation pack
- Multiple-tab
- Auxiliary Display(option)
- Portable Printer(option)

Laptop Specification

- OS : Windows 7/8/10 64bit
- CPU : i7
- RAM : 8GB
- SSD : 256G
- Screen size: 15 inches
- S/W : MD-NEXT, MD-RED

Specification

Product Highlights

- MD-NEXT/MD-RED/MD-LIVE Pre-installed laptop
- All-in-one package for the investigation in the field
- Customizable package components



Key Features

Supports various data extraction methods

Serves on-site analytical laboratory with full logical, physical and file system extraction capabilities of password and evidence data

Supports temporary command center

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

Integrity protection of evidence data

- Supports write protect function for integrity protection of the data
- Supports more than 10 hash algorithms such as MD5, SHA1
- Automatic indication of hash value by extracted data images on the report

Possibility of filming using camera

Possibility of evidence image and video shooting

Faster extraction performance

Supports extraction performance of max 1GB/Min



Camera



Laptop



USB cables



Rugged Carrier

MD-PORTABLE

Portable mobile forensic package for live data acquisition and analysis in the field.

MD-Portable is a simplified product which supports automatic smartphone detection. The data can be extracted faster and selectively during process using MD-LIVE.

Tablet Specification

CPU : Samsung S5PV210
 RAM : DDR256M
 Memory : NAND 512M
 Input Voltage : DC 5V
 Size : 110 x 140 x 35 mm

Product packages

MD-Portable bag
 USB Dongle key one piece
 MD-LIVE Pre-installed
 Tablet
 I-Phone cable(8, 20pin)
 Android cable (8,5,30,C-typed, 20)pin
 Auxiliary DISPLAY
 HD camera



Specification

Product Highlights

- MD-LIVE Pre-installed tablet
- All-in-one package for the first response in the field
- Customizable package components



Key Features

Simplified equipment components

Simplified equipment enables rapid response on site and data acquisition on the move using internal batteries

Possibility of faster forensic work

Fast acquisition of necessary data selectively using MD-LIVE and draw up a report

Multimedia Preview

Possibility of selective acquisition of image, video, or documents during acquisition by checking in advance

Integrity protection of evidence data

- Supports write protect function for integrity protection of the data
- Supports more than 10 hash algorithms such as MD5, SHA1
- Automatic indication of hash value by extracted data images on the report

Automatic model recognition

Automatic recognition of smartphone and easy-to-acquire evidence without cumbersome process of model selection

Possibility of filming using camera

Possibility of evidence image and video shooting



Camera



Tablet



USB cables



Portable bag

MD-ACADEMY

Academic training package with all the equipment necessary for mobile forensic education.

MD-ACADEMY is a complete set of mobile forensic equipment optimized for mobile forensic education. MD-ACADEMY which is composed of the test materials and the essential software of MD-NEXT, MD-RED and MD-LIVE, supports in-depth mobile forensic training and education of the latest technology trend.

Package components(10 students' pack)

- MD-ACADEMY Carrier
- MD-NEXT,MD-RED, MD-LIVE (Academic version)
- USB Dongle keys
- Sample USIM Cards
- Sample SD Cards
- SD Memory Readers
- USIM Readers
- i-phone cables (8, 20 pin)
- Android cable (5,C-typed,30pin)
- USB Camera
- Software Video CD

Optional components

- MD-READER
- Mobile forensic textbook copies
- Sample Phones, sample memory



Specification

Product Highlights

- MD-NEXT, MD-RED, MD-LIVE Academic version
- SD reader, USIM reader, USB camera
- Customizable package components
- Textbook for the lecturer



Key Features

Complete set of mobile forensic equipment

Supports the experience environmental education of the latest technology trend composed up of GT-EXTR, GT-ANA

Optimized for mobile forensic education

Supports in-depth mobile forensic training by providing smartphone sample, forensic equipment and guide textbooks

Effective acquisition and analysis using the sample data provided

Effective acquisition and analysis training is available based on the SD Card Reader and USIM Reader provided

Easy User Interface

- Intuitive user menu and simple extraction process
- Provide real phone image and description about connecting work process



SD Memory Readers



USIM Readers



Sample SD Cards



USB Dongle keys

MD-VIDEO

MD-VIDEO is the forensic software for extracting and recovering video data directly from the media storage like disk, memory card and file.

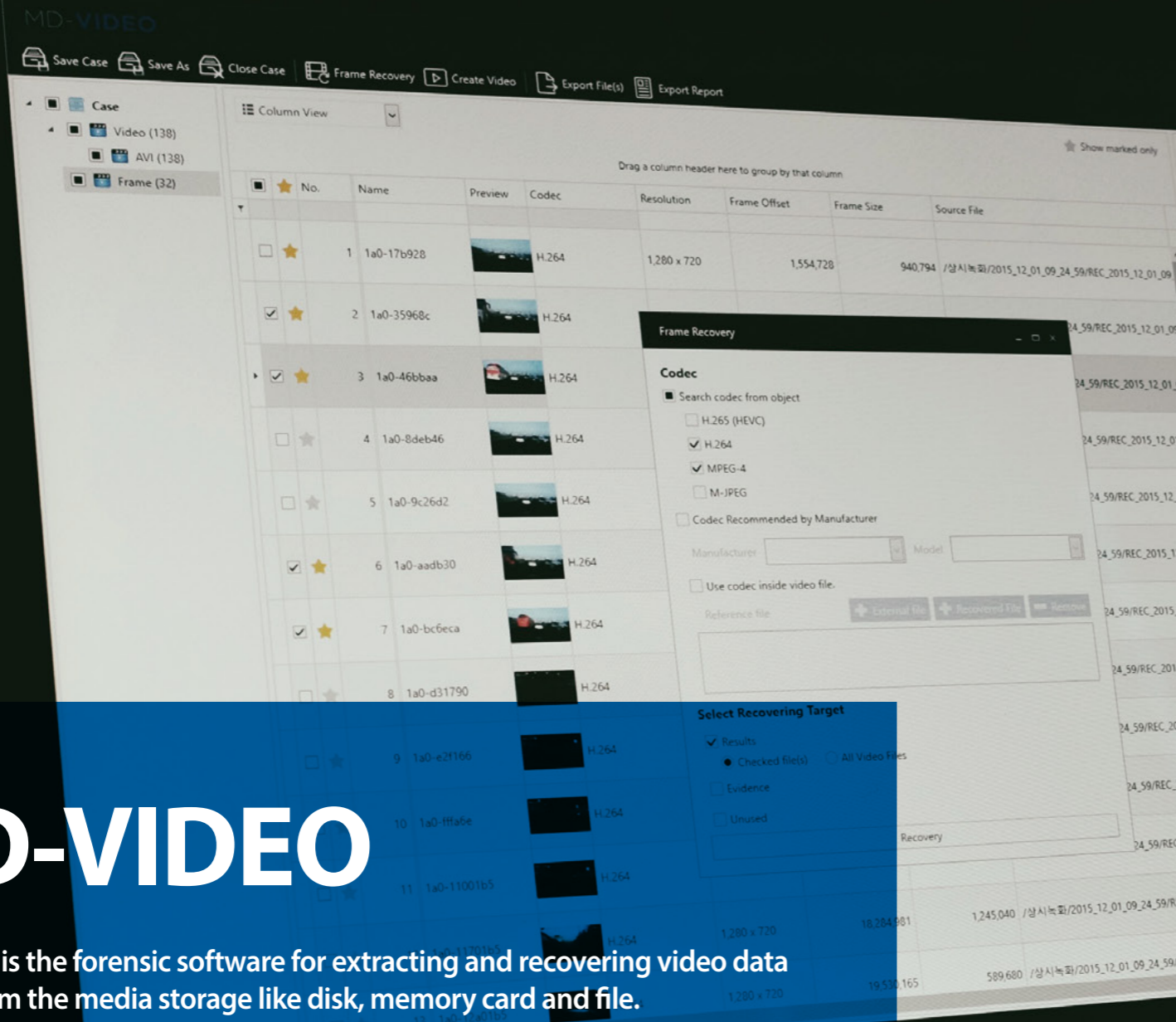
It supports CCTV, Black-box and media storages and supports many kind of new file systems and DVR vendors' filesystems. MPEG-4, H.264, H.265 and smartphone-specific codecs. Replay of all video and reassemble of the frames recovered

Hardware Specification

- OS : Windows 7/8/10 (64bit)
- CPU : i7 or above
- RAM : 8GB or more
- HDD : 1TB or more
- USB : USB 2.0 or higher

Product packages

- Installation CD
- USB Dongle Key 1 EA
- Warranty : 1 Year



Specification

Product Highlights

- Recovery and analysis of video data
- Enhanced performance of recovery speed
- Intuitive user interface
- Data retrieval and report generation

Key Features

Video data forensics for CCTV, Black-box and media storages

Smartphones (over 150), Black boxes (main vendors), CCTV (global vendors), DVR, Desktop, Server Cameras, Camcorders

3 ways of data recovery

- Supports external disk of USB connection
- Supports disk image of DD, E01, BIN and MDF
- Supports video file formats of mpg, mp4, avi and etc.

Support for all kinds of file systems

FAT, NTFS, ExFAT, HFS+, EXT1/2/3/4

3 ways of video recovery procedures

- File system recovery, Video file signature recovery
- Video frame recovery

Supports for video codecs

MPEG-4, H.264, H.265, M-JPEG, Sampling codec from the video file, Smartphone specific codecs

Recovery of video frames

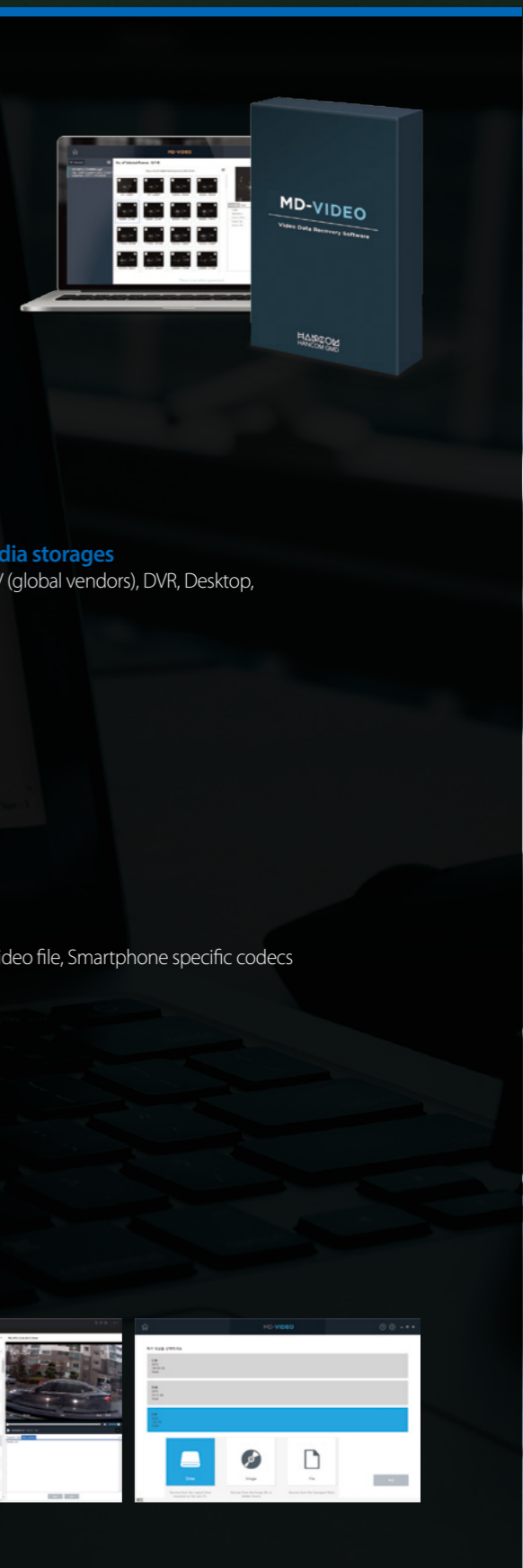
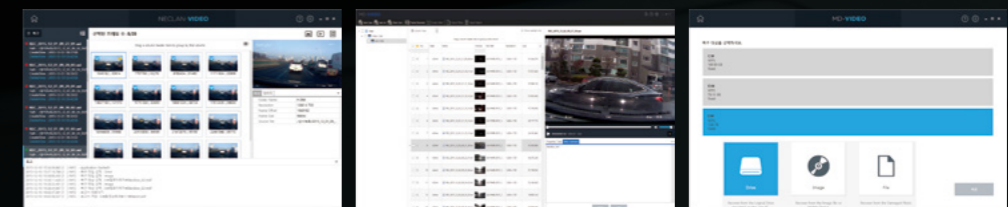
- Supports reassemble of frames into video file
- Supports export of video frame as picture
- Supports thumbnail preview and image view

Selected partition data extraction

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

Recovery reports

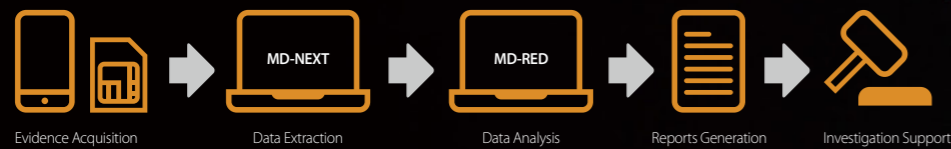
Generates video recovery report - PDF, Video file



MD-FORENSICS

MD-FORENSICS is a one-stop mobile forensics service for investigation agencies, law firms and private investigators.

MD-AUDIT is mobile forensic audit service for companies.
MD-RECOVERY is a service for recovering deleted smartphone data.



Specification

Product Highlights

- One-stop mobile forensic service
- Extraction, Analysis and Reporting
- Physical rework at mobile forensic lab
- Basic & Professional service level

Basic service

Supports many kinds of mobile device
Feature phones, smartphones, tablet, smartwatch

Data extraction & analysis
· Data extraction and data integrity support
· Recovery of deleted data and decryption of encrypted data

Investigation reports on the evidence
Generated by MD-RED and commented by mobile forensic experts

Advanced service

Supports physical rework on the evidence
Supports rooting, JTAG and Chip-off
Research on the new application and new device

Customers

Law firms

who need to submit mobile digital evidence during the legal lawsuit process for their customers

Private detectives

who need to execute work for individuals to investigate cases

eDiscovery and legal consulting firms

who need to cover mobile forensics as part of their consulting service

Other Services

MD-AUDIT

Mobile forensic service for enterprise auditing
· Financial audit, security audit, internal inspection on corruption, bribery and technology leakage.
· For enterprise audit team
· Dedicated forensics experts support on site
· Audit reports generated by MD-Series
· Service contract renewal annually or quarterly

MD-RECOVERY

Mobile device data recovery service
· For the recovery of deleted mobile device data
· Recover the deleted messages and files
· Recover photos and videos
· Smartphone, car black box, digital camera