

# MD-RED

*MD-RED is an AI-powered data analysis software for Recovery, Decryption, Visualization, Analytics, and Reporting of evidence data from mobile and digital devices*



## Apps and Data Analysis

### Analysis of 2,500+ apps

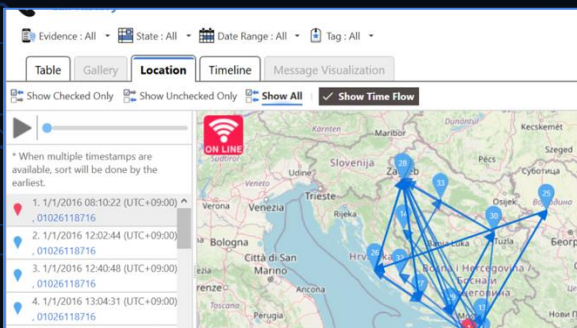
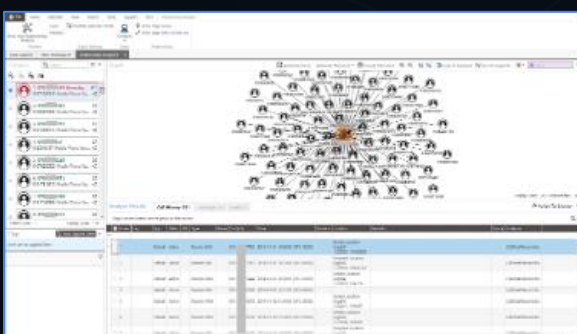
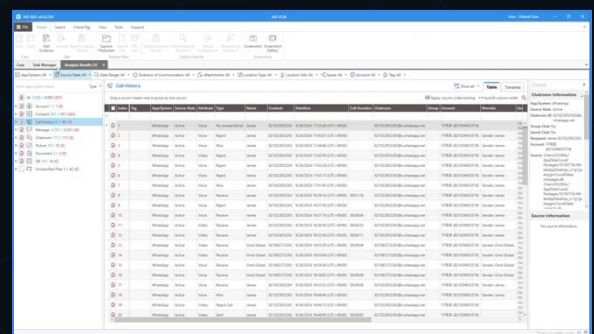
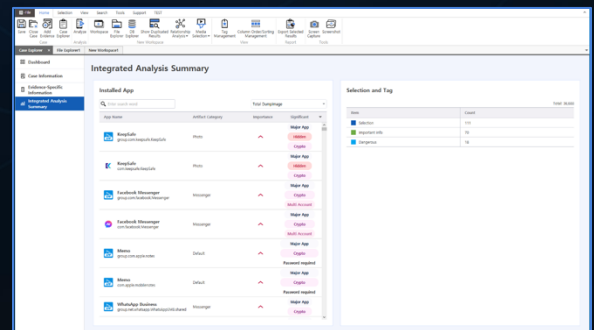
- Analysis of 2,500+ popular mobile apps
- Multi-Account & Space Analysis
- Decoding, Deserialization and Decryption of app data
- Anti-forensic Apps Detection

### Malware Scanning

- Malware detection on APK by scan engine
- Malware detection on files by Yara rules (\*.yar, \*.Yara)

### File System and Image Analysis

- Recovery of file system: EXT2/3/4, HFS+, APFS, NTFS, FAT12/16/32, exFAT, F2FS, VDFS, RSFS, XFS, and YAFFS
- Support for 3<sup>rd</sup> party forensic tools' images from Encase, GrayKey, UFED, PC-3000 Mobile PRO
- Recovers deleted files and data from unallocated space



## Visualized Analysis Result

- Map view for GPS data and cell tower location
  - Offline/Online map (Region/Country/City)
  - Tracking based on time flow
- Gallery view of multimedia files
- Timeline view of analyzed data
- Link view for social relationship
- Chat view for communication
- Web browser for internet history review
- Hex data, PList, Documents, Video, Audio viewers
- DB Hub for database files table view

## Reporting and Export

- Tagging, filtering, keyword and hash set search
- Supported reports: Excel, PDF, HTML, XML, SQLite DB
- Exports reports form for Relativity and Nuix
- Wizard for configuring report and exports
- MD-Explorer: Distributable viewer for review and tag

# Multimedia Intelligence

## AI-Powered Deep Analysis

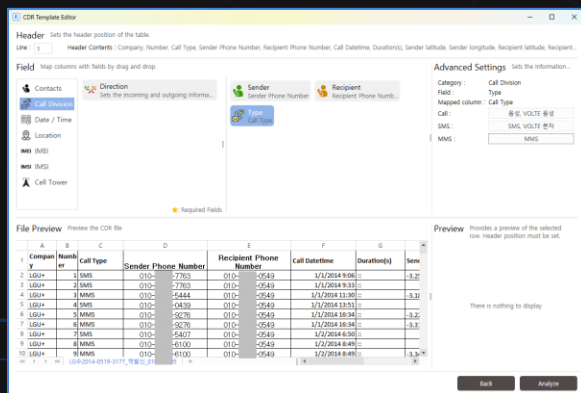
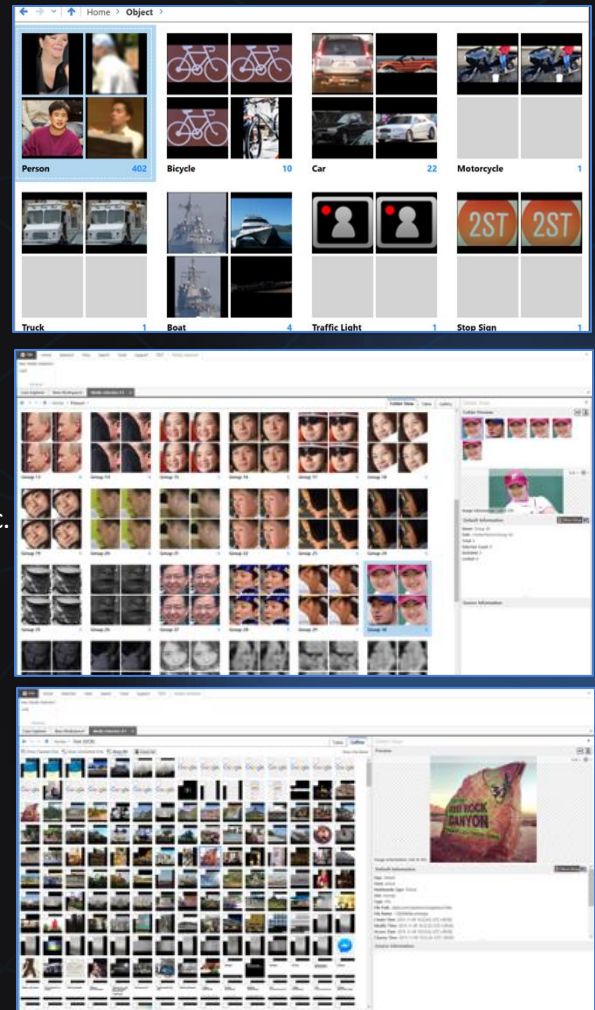
- GPU acceleration for AI processing (Nvidia GPU support)
- AI inference engine of GMDSOFT proprietary

## Image Analysis

- Facial Detection and Search
  - Detects faces in images to group by same face
  - Deep faked face detection
- Supports over 80 objects detection
  - Key objects: Car, Truck, Knife, Rifle, Pistol, Person, etc.
- Camera Analysis: Device type, photo information

## Language Analysis

- OCR results can be found in analysis result and media selection result
  - Supporting language: English, Korean
- Scanned images or taken pictures of documents are categorized as document images
- STT(Speech To Text): Converts recognized speech into text in the selected language
- MT(Machine Translation): Converts recognized speech into text in the selected language



## CDR Analysis

- Call Detail Record Analysis
- Create a template for analyzing CDR file supplied by mobile carrier
- Relationship analysis together with mobile communication data

## Project VIC (VICS, CAID)

- Filter images identical or similar to those of Child Sex Use Material (CSAM) registered with Project VIC
- A file having the same or similar hash value may be classified for multimedia based on VICS and CAID

## PC Messenger Analysis

- WhatsApp, WeChat, Facebook, Zalo, Zoom, Telegram, Unigram, IMO, Wickr, Viber, LINE
- Add-on license for PCM analysis required

