



VEHICLE DATA RECONSTRUCTOR (VDR)

REVOLUTIONIZING DIGITAL FORENSICS SOLUTION FOR VEHICLES





Rusolut is a worldwide recognized vendor of digital forensics tools with largest experience in creating leading solutions based on chip-off technology. With over 10 years of experience, we are now bringing our expertise to the field of vehicle digital forensics.

DISCOVER THE FUTURE OF VEHICLE FORENSICS

The Vehicle Data Reconstructor (VDR) is developed to set a new standard in digital forensics for vehicles. Designed to surpass existing solutions, VDR ensure comprehensive, reliable, and efficient data acquisition of crucial digital evidences from vehicles, providing forensic experts with easy-to-use tool with extensive possibilities and advanced features.

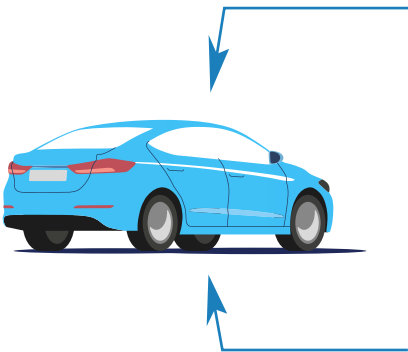


UNMATCHED CAPABILITIES

The Vehicle Data Reconstructor is engineered to function in all conditions - whether the vehicle is functioning or not, crashed, drowned, or burnt - VDR requires only the infotainment system or other telematic/wireless modules for examination, enabling labs to manage multiple cases the same time without needing the entire vehicle.

Works with **ALL Vehicles** that use modules designed by vendors, such as: Bosch, Ford, Magnetti Marelli, Harman, Harman Becker, LG, Continental, TechniSat, Panasonic, GM, Preh, Peiker, Alps electronics, Clarion, Delphi, Johnson control, Alpine, Novariant, etc. Our research methods and efficient support team allows to add new devices within hours/days.

COMPREHENSIVE DATA ACQUISITION



VEHICLE-RELATED DATA

- ✓ **Vehicle System Data:** VIN, serial and part numbers, FW version, MAC/IP addresses, etc.
- ✓ **Events:** WIFI/Bluetooth/USB connections, vehicle power on/off, start/stop, reboots, door/light data, odometer, fuel consumption, system logs, etc.
- ✓ **GPS navigation data:** routes, tracklogs, POIs, trackpoints, destinations, GPS sync events, saved locations, etc.
- ✓ **Built-in applications:** Traffic, weather, radio, etc.

USER-RELATED DATA

- ✓ **Connected devices:** Smartphones, USB/SD cards, WIFI/Bluetooth logs, device list, timestamps, serial numbers, etc.
- ✓ **Smartphone synchronized data:** Device list, Calls, Phonebooks, SMS, Media, App data, etc.
- ✓ **Device identifiers:** Bluetooth/WIFI MAC addresses, phone names, WIFI access point info, installed apps.

WHY CHOOSE RUSOLUT VDR?

Universal Functionality

VDR operates in all scenarios, ensuring data recovery even from severely damaged vehicles or non-functional systems.

Data acquisition without need of the vehicle

Simplifies forensic examinations by needing only the infotainment system or telematics/wireless module, not the entire car.

100% Read-Only Forensic Access

Guarantees clean, unaltered data acquisition with no risk of adding or modifying data or recording any events during examination.

Firmware Version Independence

Data access is not hindered by the system's firmware version, ensuring seamless data acquisition no matter what version is used.

Deepest possible access to the data

Beyond information from the file system, VDR reads data from previous versions of files and from obsolete NAND blocks, significantly expanding forensic analysis capabilities.

Fastest Data Acquisition

Achieves the fastest data extraction speeds – up to 10 MB/s for NAND chips and 50 MB/s for eMMC chips.

Support of Proprietary and Embedded File Systems

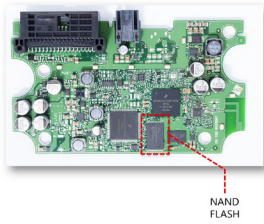
Supports a range of proprietary file systems, including QNX, YAFFS, UBIFS and other FTL-based embedded file systems

Non-Invasive Adapters

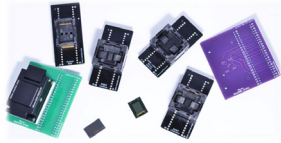
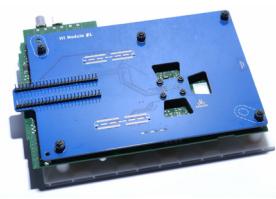
Utilize solderless adapters combining Chip-off approach advantages and non-invasive data acquisition without causing irreversible damage to the vehicle.

HOW DOES IT WORK?

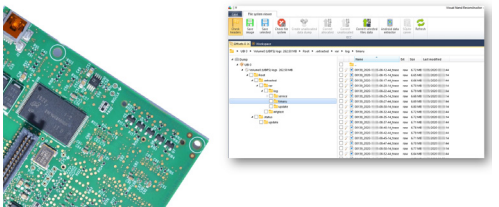
1 Data acquisition is performed either via chip-off or solder-less adapter whether it's NAND or eMMC for all systems based on supported memory chips such as TSOP48, BGA63 (two sizes), BGA100, BGA153/169, BGA137, BGA107 and others with universal adapter (Monolith)



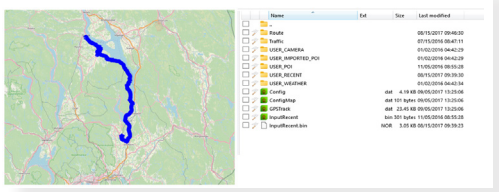
2 Raw dump read and converted to logical image



3 Files and data are extracted, parsed according to format and saved.



4 Data report is generated based on supported system and available data



WHAT'S INCLUDED

- ✓ Powerful software for physical dump acquisition and further vehicle data extraction, including parsers for File systems: QNX6, UBIFS, YAFFS2, FAT12,FAT16,FAT32,exFAT, Ext2, Ext3, Ext4, NTFS, HFSX, others embedded systems based on FTLs.Embedded FTLs...
- ✓ VNR Reader for reading NAND chips
- ✓ Set of all necessary adapters for NAND Flash and eMMC memory chips TSOP48, BGA63 (two sizes), BGA100, BGA153/169, BGA137, BGA107,
- ✓ Non-invasive ISP NAND and eMMC adapters enabling direct data extraction from memory chips similar to the chip-off method but without the need to unsolder the chips, thus preserving the integrity of the system without any destroys *
- ✓ Forensic report generation tool
- ✓ Widest database of the error correction codes to fix bit errors in NAND memory
- ✓ Widest database of supported NAND memory chips
- ✓ Largest Database of Read-Retry Algorithms required to improve NAND memory reading quality

* The number of adapters is updated at the time of purchase

DATE OF RELEASE

We are excited to announce that VDR technology eagerly awaited by all forensic examiners engaged in Vehicle Forensics investigations, is scheduled to be released in **Q1 of 2025**.

We encourage you to consider your budgets for this upcoming purchase to ensure you can take full advantage of this advanced technology upon release.

For any official quotations and technical specifications required for the formal purchasing process, please do not hesitate to contact us.

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