neoVI ION

Vehicle Network Interface & Remote Data Logging System

The neoVI ION marries the best of vehicle network tools with the Android embedded operating system. The result is a solution unparalleled in capability.

Applications:

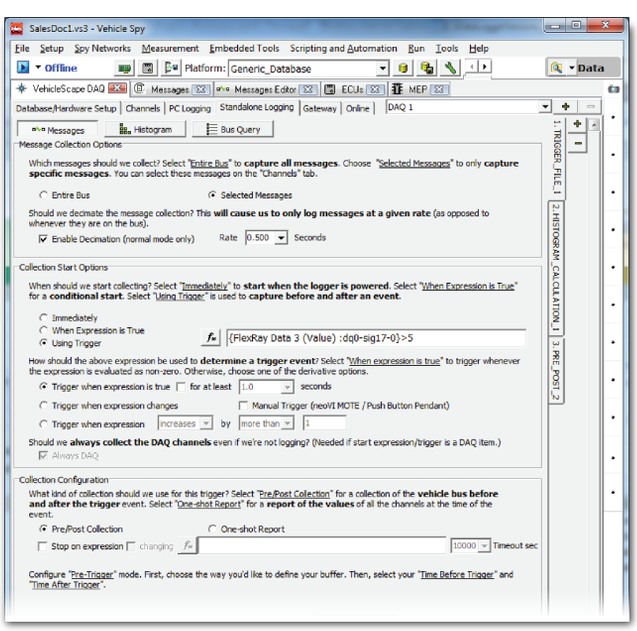
- Stand-alone data logger
- Remote data logger with auto-download via WIFI, 3G, or Ethernet
- Stand-alone ECU or vehicle simulator
- In-vehicle data acquisition system
- Captive test fleet data collection
- Fleet management
- Vehicle interface tool with J2534 and RP1210 support over USB 2.0 (GM DPS, Ford DET, DiagRA, Chrysler CDA)

Networks:

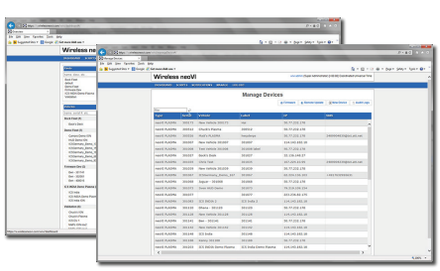
- 6-12 Dual Wire CAN
- 1-2 Single Wire CAN
- 1-2 LSFT CAN
- 5-10 LIN
- 5-10 ISO9141/KWP, K-LINE
- MOST
- FlexRay

Protocols:

- ISO14229 (UDS)
- GMLAN
- CCP/XCP
- J1939
- OBD



VehicleScape DAQ
Using VehicleScape DAQ inside the Vehicle Spy software provides a single GUI for loading vehicle databases such as A2L, ODX, MDX, GDX, DBC, and others. Once the vehicle databases are loaded, simply search by signal names, PIDs/DIDs/LIDs, measurements, and parameters and select those you wish to acquire. Click on the Stand-Alone Logger tab to configure such things as pre/post trigger events, sleep modes, file names for your data files, remote upload options, and much more.



Send Configurations or Scripts and Manage Data Remotely via Wireless neoVI
You can remotely send a data logger configuration or script from Vehicle Spy to your neoVI ION through Wireless neoVI. Wireless neoVI is a website that provides fleet and data management to a fleet of vehicles. You can get the latest GPS location, automatic data downloads, and automatic export of data in the format you require.

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Remote Connectivity and GPS Location
The neoVI ION provides several ways of connecting remotely:

- Internal 3G Data Modem
- WIFI
- Ethernet (for connection to external 3G modem or wired network)

All of these allow for data download and remote fleet management. In addition, the neoVI ION has a 5 HZ GPS accurate to within 3 meters. GPS is provided both as a fleet management tool and within the data logging session for correlating location to your test data.

The Power of Scripting – CoreMini
If you need to support a proprietary protocol, setup a simulation to run in parallel with the data logger, or any other custom action, the system offers a scripting environment for you to expand the base functionality to fit your unique needs. This makes the entire system very flexible and adaptable.

VNET Modules – Multiple Network Adaptors within one neoVI ION
The neoVI ION comes standard with one neoVI FIRE VNET Module – a miniaturized version of our neoVI FIRE network adaptor. You can have up to two VNET Modules, supporting large numbers of CAN channels, MOST, FlexRay, analog and digital I/O, HD video, and more. Examples of configurations are:

- 12 x dual-wire CAN channels
- CAN + FlexRay
- CAN + MOST
- CAN + Analog I/O

VNET modules also allow for future expansion and re-configuration as your needs change.

Logging While Downloading from Massive On-Board Memory
With the aid of a proprietary Android application, data is uploaded without interrupting or slowing down your data acquisition. The neoVI ION has an SD Card slot and allows for a high-speed SD card of up to 128 GB. This enables you to capture on the order of hundreds of billions of messages! If you are automatically uploading data, this may not seem important. However, if you are in an area with no coverage or you have a network outage, you won't have to worry about losing data.

Sleep Mode Options
The proprietary Android application also provides sleep management, which works with the neoVI ION to sleep when needed, upload data before sleep, and wake whenever network traffic begins. Many options are available:

- Upload all data since last power-on before sleep
- Upload all pending data before sleep
- Upload pending data when network signal returns
- Instant Wake-up – Capture even the very first message on dual-wire CAN networks
- Several sleep modes with current draw < 1 mA

Networks / Inputs:

- 6-12[1] Dual Wire CAN (All baud rates supported)
- 1-2[1] Single Wire CAN (Also referred to as GMLAN)
- 1-2[1] LSFT CAN (Low speed fault tolerant)
- 5-10[1,2] LIN/K Line/KW2K/ISO9141
- 3-6[1,3] Low Range Analog Inputs (FIREVNET): 0-3.3V Range, 12 bit single ended analog inputs with +/-5% error, 1K Samples per second
- 2-4[1,3] Low Range Digital Inputs / Outputs (FIREVNET):0-3.3V Range, Digital IO (5V tolerant)

[1] - 1 VNET included, up to 2 supported for 2x network interfaces
[2] - Uses K-Line Transceiver (simultaneous K-Line and LIN for one network not supported)
[3] - Analog Input pins are shared with 4 Digital Input pins

Device Specifications:

- Voltage Input: 4.5V - 40V
- Temperature: -40 to +85 Deg C
- Dimensions: 3.88cm x 11.12cm x 18.67cm (1.524in x 4.378in x 7.30in)
- Number of Expansion Slots: 1
- LEDs (user programmable): 8 red
- Android User microSD card
- SD Card: 1
- 2.0 High-speed USB
- DAQ Ethernet
- 3G Modem
- GPS Support: 5Hz GPS support

Protocol Support:

- OBD
- J1939: Includes J1939 DBC, BAM, RTS/CTS
- GMLAN: Services include: $22, $23, $AA, $A9, $2C. Includes: DBC, A2L (ASAP2 File) and ODX, and PID file support
- UDS (ISO14229): Services include: $19, $22, $23, $2A, $2C, Includes: DBC, A2L (ASAP2 File), GDX, MDX, ODX support
- CCP: Includes A2L (ASAP2 file) and ROB support
- XCP: Includes A2L (ASAP2 file) and ROB support

Part Number	Description
neoVI-ION	neoVI ION device

**Specifications subject to change. Please contact Intrepid for the latest information.*

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