



VCAR DAS

Integrated SIL/HIL Testing & In-Vehicle Bus Development/Testing Software Platform

All-in-one simulation, fault injection, diagnostics & scripting
— Maximum Efficiency, Seamless Convenience.

For automotive HIL test engineers and bus developers, VCAR DAS is your all-in-one automotive development, testing, and analysis platform: it unites VCAR DAS consolidates HIL test execution, engineering configuration, in-vehicle bus simulation, diagnostics, and automated testing capabilities into a unified solution. Swap fragmented toolchains for automated end-to-end workflows to cut manual busywork, speed up cycles, and boost testing accuracy. Focus on building robust automotive systems—not fighting disjointed tools.

Main Functions

Centralized Management of HIL and SIL Resources

Configure and manage multiple HIL test benches/ SIL operating environments simultaneously; support manual addition and remote auto-retrieval of board card information, single interface for configuration, execution, and monitoring. Centralized control of HIL I/O, loads, and power.

In Vehicle Network Configuration

Enable communication setup for buses (CAN, LIN, ETH, etc.); create Ethernet virtual topologies (switches, ports, MAC addresses, VLANs, etc.) to implement simulation and fault injection across all bus layers (physical, data link, application).

Model & Node Simulation

Load diverse model types (e.g., Simulink, CarSim); create virtual nodes (e.g., CAPL, network, DDS); import protocol files (e.g., arxml, dbc) to enable bus encoding/decoding, SOA node simulation, and closed-loop testing.

Test & Signal Management

Run multiple test environments concurrently on a single device; build test interfaces via GUI drag-and-drop editing; define stimulus signals graphically (e.g., constant, sine, random) and support signal monitoring, recording, and playback (compatible with ASAM MDF format).

Fault Injection & ECU Flashing

Support controller fault injection and bus fault injection (electrical, link, application layers); enable ECU flashing via XCP/Ccp protocols.

Diagnostics & Automation

Implement UDS diagnostics (over CAN FD/Ethernet) and custom execution of diagnostic services; support CAPL/Python script editing for automated test case execution and custom interface development.

Advantages

Streamline Workflows Across Platforms

Consolidates full-lifecycle capabilities (HIL test execution, engineering configuration, in-vehicle bus testing) into one platform. It replaces fragmented toolchains, reduces cross-tool manual collaboration, and lets teams focus on core testing tasks.

High Flexibility & Compatibility

Supports GUI drag-and-drop configuration, custom models/nodes/signals, and compatibility with industry standards (e.g., ASAM) and diverse model/protocol file types—adapting to varied testing scenario requirements.

Efficient, Cost-Saving

Enables parallel management of multiple test benches/test environments; pairs with CAPL/Python automation scripts to shorten project cycles, cut on-site collaboration costs, and reduce tool operation and maintenance expenses.

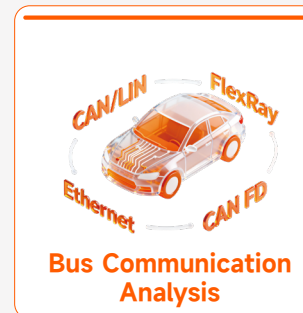
Robust Functionality & Standard Compliance

Covers fault injection across all bus layers and multi-protocol closed-loop testing; aligns with industry standards while accommodating custom needs, ensuring test compliance and product adaptability.

Fully In-House Developed

Leverages a self-developed software architecture to eliminate reliance on third-party tools, safeguard system data security, and support flexible expansion and iteration of business scenarios.

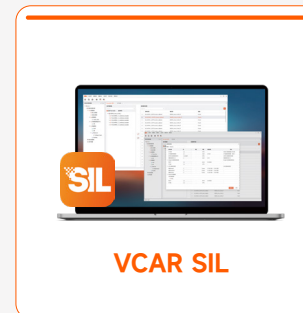
One Software for All



Bus Communication Analysis



HIL Testing Platform



VCAR SIL



3rd Party Software Support via API

Multi-device compatible, Lower your software costs
Effortlessly streamline your workflow across functions



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