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CanEasy

The analysis and testing environment
for CAN and LIN bus

Simulate complex bus systems, analyze communication exten‐
sively, generate high productivity through high‐level automation
and individual configuration, extend easily and flexibly.

CanEasy – the analysis and testing environment for CAN and LIN bus

CanEasy is a Windows-based analysis and testing environment for CAN and LIN bus. The software integrates seamlessly into any existing tool chain. It can be used without programming skills, is highly automated, easy to use und extendable. CanEasy lets real and simulated electronic control units (ECUs) communicate across different buses following the communication matrix (remaining bus simulation). Not only does CanEasy facilitate software development: Testing, work preparation, repair or production teams benefit from its comfort and efficiency as well.

CanEasy's high degree of automation enables users to be productive right from the start. The simple configuration enables users to continuously adapt their own workspace single-handedly. Additional requirements can be met using basic programming skills. That way, CanEasy lets users concentrate on their core tasks, personalize the software on their own and work efficiently.

CanEasy is available as conventional purchase license and as flexible monthly subscription CanEasy on Demand.
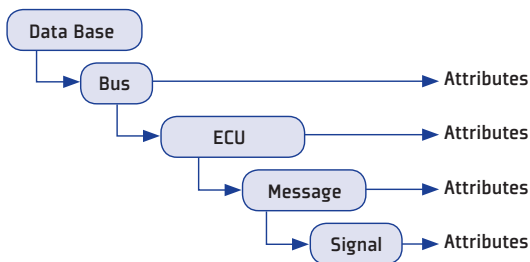
All elements of data base can be edited immediately.

Simulate missing ECUs

The software automatically generates data structures for busses, ECUs, messages, signals, attributes or variables when a communication matrix is imported. Users can view and edit signal states and message data via self-generating panels. Changes to the data base can be made using integrated editors. An automated CAN transmission control and a LIN scheduler send simulated messages based on the information in the data base and trigger time-based events or program and function calls. Basic applicative behavior can easily be configured using modulators or arithmetic and logic operators. More complex behavior can be programmed with VBA or VSTA and integrated as plug-ins via Windows DLLs.

Analyze bus traffic

Users can follow and analyze CAN and LIN bus signals during active communication in self-generating panels and signal monitor windows. Relevant signals can be grouped into custom user panels. In addition, the data can be evaluated in plot and trace windows. CanEasy records and compresses all data, allowing later playback or reviews in whole or in part. Integrated bus statistics log the amount of sent and received messages.

Consistent user interface

From CanEasy's central tree view, users can access all CAN and LIN data as well as environmental variables. Via simple drag & drop editing, ECUs, messages or signals can be assigned to self-configuring core functions like user panels, signal monitors or trace windows. Integrated editors are available via context menus. All user settings are stored in a project file, enabling users to start right where they left after rebooting the application. A comfortable search feature scans the complete data base, including descriptions, attributes and variables.
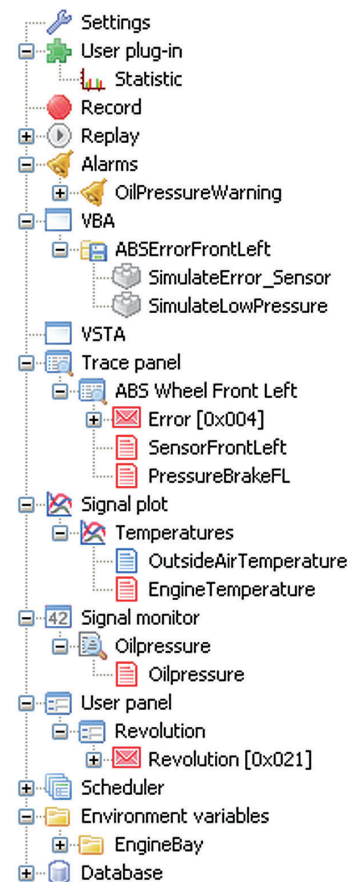

All data base objects can be monitored, edited and assigned to different functions or views using drag & drop editing.

Instant productivity, individual configuration, easy extension and seamless integration.

Automate testing scenarios

CanEasy users create even complex environments for simulation, analysis or testing independently and without programming skills. CanEasy automatically generates a complete working environment including all data base objects from the communication matrix. Every object can be viewed or edited in self-generating panels and editors. Basic communication mechanics, like cyclical or spontaneous transmission of messages are provided automatically.
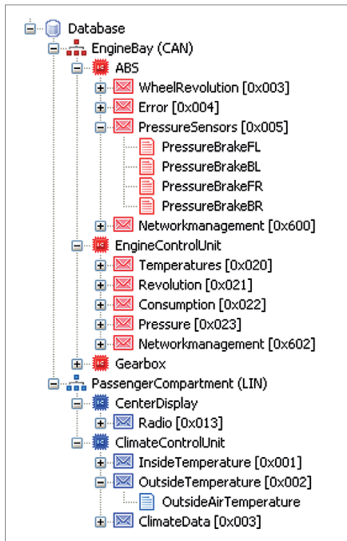
Panels can be generated automatically with a simple double-click and without programming skills.

Configure processes

Users can quickly modify CanEasy to suit individual requirements and tasks. Data base objects can be assigned to user panels, signal monitors, or trace windows using drag & drop editing. Non-standard signal cycles or functional interdependencies of ECUs can be configured easily: The modulator function enables simple signal modulation. In addition, event-triggered responses to CAN and LIN signals can be added comfortably with the help of arithmetic and logical operators. The alarm function monitors selected signals and messages, notifying users immediately on relevant deviations or events. A statistics window evaluates transmission cycles with stochastic measures. Finally, the gateway feature allows communication between discrete buses.

Program additional functionality

Complex requirements and applicative processes can be implemented quickly and easily using the integrated development environments VBA (Microsoft Visual Basic) or VSTA (Visual Studio for Applications). Functions can be added to CanEasy via plug-ins using Windows DLLs (Dynamic Link Libraries). The extensive ANSI-C interface, including a multitude of call-back functions, or the CanEasy COM server with its many COM objects and events help users create complex and dynamic processes.

Integrate CanEasy

CanEasy can be included into any other application as a program library. This way, CanEasy can be integrated via standardized interfaces into common tool chain applications, like the test management software TestStand or the programming platforms LabVIEW or LabWindows from National Instruments.

Tailor-made functionality: the CanEasy editions

The full programming package

Be in charge of interaction

See what's on the bus

The entry into the CanEasy world

CanEasy is available in four product editions – both as purchasing and subscription models. That way, you get the exact functionality required for your tasks. Additional options include LIN or diagnostics.

CanEasy Professional – for sophisticated developers: full functionality for analysis, testing and simulation, all programming and integration options.

CanEasy Simulation – for users who design and use simulation and testing environments.

CanEasy Analyse – for users who want to monitor bus traffic of existing systems, e.g. in a vehicle.

CanEasy Basic – for entry-level automotive users; enables users to monitor a single bus.

CanEasy's benefits at a glance:

- Instant productivity through automation – no time-consuming setup or programming
- Working environment can be modified quickly to suit individual requirements and tasks
- Intuitive core functionality: user panels, signal plots, trace windows
- Recording of all CAN and LIN bus communication
- Comfortable user interface using tree views, drag & drop editing and context menus
- Snapshot functions enables quick saving and restoring of workspace configuration
- Integrated editor for editing elements in the data base
- Easy plug-in development to generate new functions, rules and views
- Large choice of tried and tested plug-ins like OSEK network management
- Supports extended testing of more than 1.000 h using compressed recording and storage
- Integrated VBA and VSTA development environments
- Integration as Windows DLL including an ANSI-C interface or as COM server
- Broad selection of CAN and LIN bus hardware

Technical specifications

System requirements:

- Windows 2000, Windows XP, Windows 7
- 2 GHz CPU or better
- min. 1024 MB RAM

Hardware interfaces:
CanEasy supports many hardware interfaces for CAN and LIN bus with diverse technical specifications. Supported manufacturers include Kvaser, Melexis, MHS, National Instruments, Peak, Softing and Vector Informatik. Support for other interfaces can be built as required.

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