

## Canexplorer 4 (automotive)

 The Sontheim tool chain for the CAN network contains various components for different field-bus tasks such as setting parameters, configuring, controlling, doing diagnostics and analyzing CAN data. There is training available as well as adaptation. Many components consist of different modules that can be updated and extended. It is our pleasure to introduce our software to you or send you a demo version, e.g., of the CANExplorer 4. Please feel free to ask.

### **M.D.T. - modular diagnostic tool**

The M.D.T. is an innovative authoring software for the creation of complex diagnostic applications in the automotive sector. Despite its ability to create complex diagnostic applications, it is also most suitable in environments, where staff without programming experience needs to have a professional but comfortable tool e.g., for maintaining a vehicle.

A major advantage of MDT is the support of international communication protocol standards like SAE J2534, SAE J1939, ISO 15765 (KWP2000 on CAN), RAW-CAN, CANopen or customer-specific and proprietary protocols. In addition to the CAN network, the MDT also accesses data bases for connecting all information. Using ODX standard, XML and JAVA runtime guarantees a fast visualization of vehicle parameters, even during the development process of new vehicles. This provides a perfect adaptation and a high flexibility for new applications.

An additional advantage is the sophisticated and intuitive visualization via tachometers, progress bars, LEDs, extended graphs, labels, images etc., to create the GUI. The user can drag-and-drop the indicators, which means that a technician can focus on the vehicle instead of the ECU or field-bus. The user data are provided with the ODX services and can be configured directly within the authoring tool. The diagnostic workflow can be adjusted by using standard flow-chart elements. Moreover, the software has a multi-language support for enhanced handling comfort and a context menu containing enhanced functions. Therefore, the MDT is your first choice for both creating diagnostic applications as well as operating sophisticated software in the field.

### **Features**

- Different diagnostic modes that can be chosen with regards to the user's experience
- Adaptation and flexibility due to modular concept
- Pre-defined functions of program flow elements
- Different visualization tools for the user interface
- ODX-editor for creating ODX files

### **ODX-Editor**

The ODX-Editor is used to abstract the ECU parameters and provides a very easy editing of existing and new ODX files via GUI. The software is part of the modular-based Sontheim MDT - the modular tool chain for diagnostic and service applications.

It simplifies the writing of texts and cares to maintain rules for creating valid files according to ASAM MCD-2D. The main task is the generation of entries and control of existing ODX data bases. If one value is invalid, the ODX-Editor continuously provides help functions during the editing. It accesses data bases (for example SQL), serial, standard and proprietary protocols as well as .ini-files for increased usability.

### **Features**

- Each available and future communication protocol is describable
- Parameterization and creation of
  - Data types
  - Services
  - Positive responses
  - Negative responses
  - Global negative responses
- Extensible and changeable services
- Detailed and extensible helping function
- Debugging function to test a service after false ODX data in a configuration
- Controlling function for the existence of all ODX data

### **Flash tools**

An important component of the Sontheim tool chain is the flash tool for programming single ECUs (electronic control units). Numerous 8-, 16- and 32-bit micro-controllers and protocols are supported, such as

#### *Micro-controllers*

- Infineon
- Philips
- Motorola
- Fujitsu Siemens
- Atmel
- TriCore-based ECUs

#### *Protocols*

- KWP2000
- CANopen
- ISO 15765 (Diagnostics on CAN)
- J1939
- Raw-CAN

In order to achieve the highest user-friendliness and an intuitive handling there are some OEM "look and feel" elements implemented. In addition to that the flash processes can be conducted in an automated or guided way.

### **CANexplorer 4**

Modular, efficient, intuitive - the brand new CANExplorer 4 is a completely new developed field-bus analyzing software for CAN, based on years of experience working with complex machine and vehicle CAN networks.

The new modular concept provides all necessary features for analyzing and logging the complete CAN network traffic like classic text-based traces, graphs, bar-graphs, LEDs, filters and triggers. Furthermore, one can use the integrated protocol abstraction for CANopen and SAE J1939 to get pre-processed CAN data. For all proprietary protocols and RAW CAN data, one can use the integrated symbol editor in order to define own symbols for abstracting CAN frame values into human readable values.

Of course, the logged CAN data can be replayed for simulation purposes. The test setups are configured by using an intuitive drag-and-drop system where only a few clicks are necessary for preparing new test-setups. In order to enable a simultaneous operation along with other applications on a PC as well as a virtual device driver which allows testing of all functions without any connected hardware, the CANExplorer 4 finally provides a multithread support for the SiECA132 MT-API with a maximum of 512 handles.

### **Features**

- User-defined test setups with graphic elements and drag-and-drop
- Receive, edit, transmit and abstract raw data
- J1939 and CANopen protocol support
- Modular design with possibilities for extensions
- Import and export of signal databases

More detailed information about the Sontheim software tools for different field-bus tasks, can be found on our website [www.s-i-e.de](http://www.s-i-e.de). We are looking forward to your visit.

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## Contact

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## Features

No features listed.