MDT

Modular Diagnostic Tool Chain
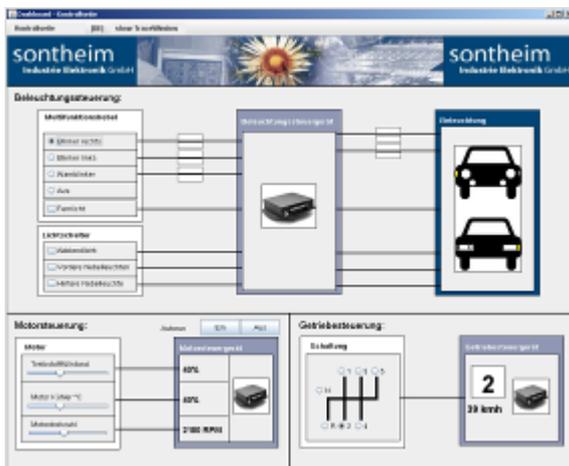
- Graphical configuration of a diagnostic process
- Support of standardized and proprietary communication protocols in one application
- Highest flexibility at creation of graphical surfaces and diagnostic processes
- Pool of visualization-objects for user-surface
- ODX-Editor for creation of own ODX-data

MDT – A future-proof diagnostic tool-chain

MDT is an innovative and comfortable diagnostic tool-chain for the flexible creation of individual and complex diagnostic- and service-applications. The current applications range from solutions for the sectors of vehicle diagnostics, service, flash-tools and EOL (End-of-Line) programming for the automotive industry. Due to the modular concept and its flexible ways of configuration MDT offers an efficient and process-proof creation of new applications within very little time. Visualization and program flow can be configured freely. Further advantages are an abstraction of ECU communication in ODX-format and a very intuitive handling. Therefore, MDT can also be used by staff without programming experience for the creation of applications.

Intuitive configuration of surfaces

The user-surface can be set up via „Drag&Drop". In addition to that, the diagnostic process can be configured via flow chart. The different digital and analog vehicle parameters are being displayed with the help of several visualization objects like graphs, LEDs and tachometer.

Vehicle parameters are being directly connected to ECU data that are provided in ODX-format. By doing so, there is no detailed experience in ECU communication necessary. MDT offers every tool for creating a diagnostic application like "expert diagnose" or "guided diagnose".

Support of standardized and proprietary protocols

MDT supports many international communication protocols. Currently, we offer RAW-CAN, CANopen, SAE J1939, ISO 15765 (KWP2000 on CAN), UDS and ISO11783 Part 12 (ISOBUS). It is of course possible to add further communication protocols and implement proprietary protocols due to the modular structure.

Development Suite and Runtime System

While creating the MDT, we put special emphasis on user-friendly handling – both for developers and for service technicians. That is why the software contains a developers' suite for generating diagnostic applications as well as a runtime system for the direct deployment at the vehicle.
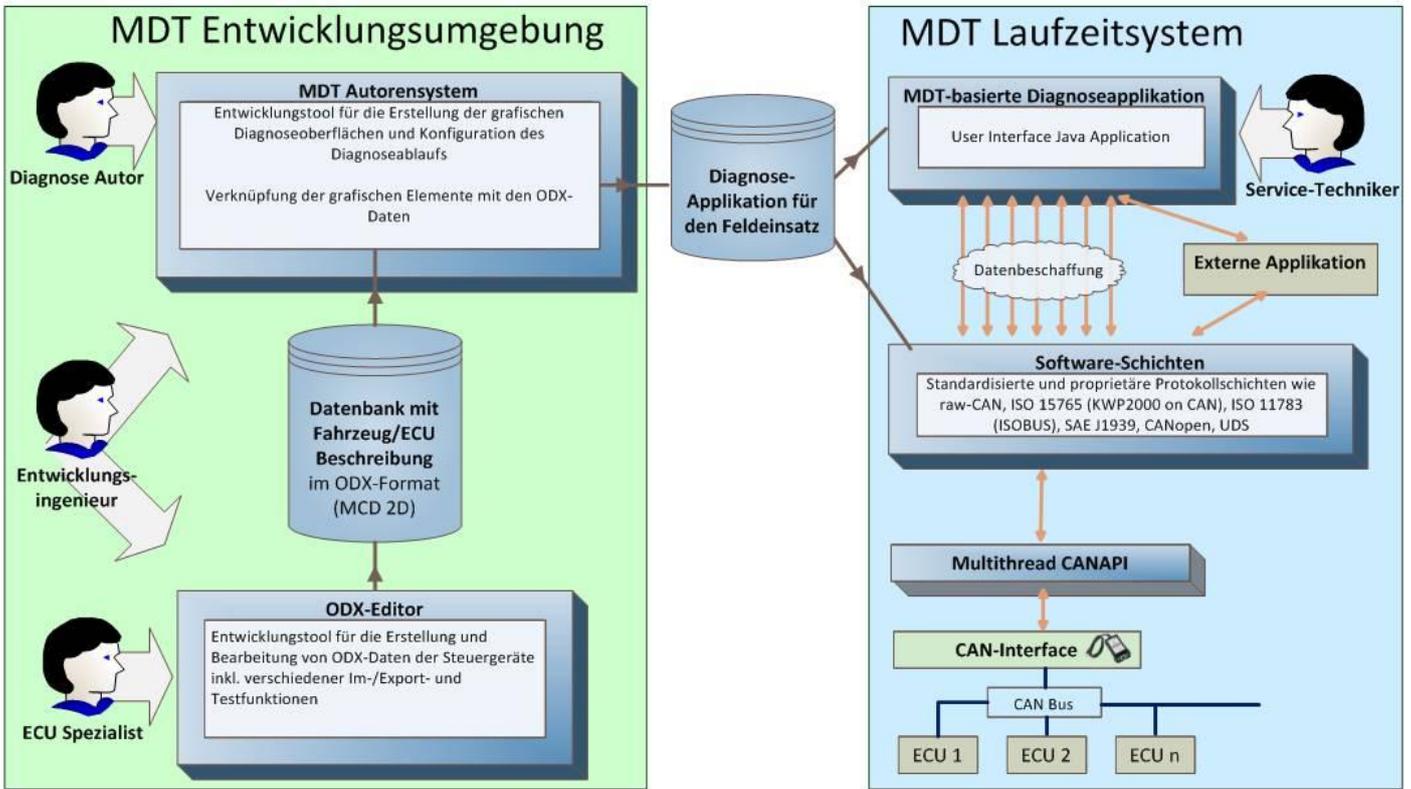

An application can be set up in three easy steps. Firstly, the user has to generate a database of ECU data via ODX-Editor and the customer-specific data (e.g. of the ECU). This database then needs to be integrated into the diagnostic project. Following that the user can modify an existing application or develop a new one.

A service technician has to focus on one main task – efficient error diagnose. While being at the vehicle, the created application can be installed with a flexible routine. Besides the application this routine also installs every necessary communication protocol and software module.

Software-Tools	Target sectors	Target markets
Vehicle Diagnostics	Service / maintenance	Manufacturer and supplier of:
Network management	Production	Agricultural vehicles
Calibration and configuration	Research	Commercial vehicles
Service tools	Development	Communal vehicles
Flash tools		Construction vehicles
EOL-software		Automobiles
CAN analyzer software		
Authoring tool		
ODX-Editor		

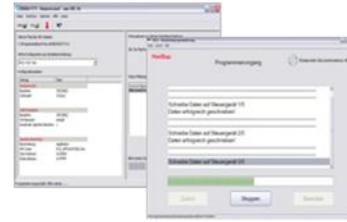# Overview of the MDT Modular Diagnostic Tool Chain:
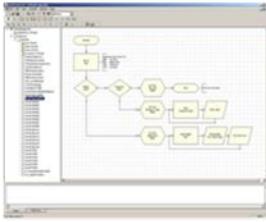
MDT Authoring tool
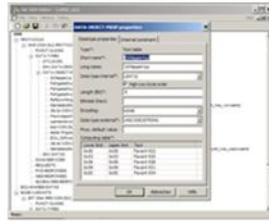
ODX-Editor

CANexplorer 4

Flash-tools &
End-of-Line (EOL)

Protocol stacks

Flash- &
Boot-loader

Programmers'
interfaces

CAN-interfaces

Technical data	
Minimum system requirements for a service device	Intel Pentium III, 750 MHz or higher 256 MB RAM Min. resolution of 800 x 600 USB 1.1 or higher
Minimum system requirements for a device for creation of service applications	Intel Pentium IV, 2 GHz or higher 512 MB RAM
Supported runtime systems and hardware drivers	Microsoft Windows 2000 Microsoft Windows XP Microsoft Windows Vista
Supported CAN-interfaces	CANUSB, CANUSBlight, further interfaces upon inquiry
General program structure	Graphical editor for the program process of internal data flow in a diagnostic setup, surface editor
Supported standards	CANopen, SAE J2534, SAE J1939, ISO 15765 (KWP2000 on CAN), ODX 2.0.1, access to Lotus Notes, other databases available upon inquiry