

# Tracking Down Errors

## The Perfect Diagnostic Tool in Vehicle Engineering – Whatever the Application Case

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Vehicle engineering is facing a range of challenges. This is why today manufacturers and their suppliers work together at a global level at which they need to be able to exchange data safely all over the world. The range of vehicles is constantly diversifying while the engineering cycles are becoming ever shorter. Vehicles must be maintained over the entire product life cycle which means that more and more tasks have to be completed in an ever shorter time. Technologically, the electrical-electronic components used are becoming more extensive and increasingly support networking and digitization. And, finally, compliance with legal requirements is becoming ever more important.

### Diagnostics as a Central Requirement

These trends have resulted in a greater number of test cases, all of which have increased in complexity. It is no surprise then that error analysis has acquired major importance in the engineering process. When selecting tools, users should remember that the aim is to develop diagnostics only once with subsequent implementation in the varying application cases in engineering, testing, manufacture and inspection where they can continue to be used.

Application cases include, for example, verifying correct ECU communication to avoid delays and problems with vehicle programming in data exchange, both internally and externally. Validating the ECUs ensures conformity with the functional diagnostic specification and legal requirements. A further application case is the identification of the unit under test and the reading out of the error memory. This makes it possible to acquire and document the current version and all error entries currently pending. Finally, diagnostic tools are also used to update ECUs and vehicles, for example during the engineering process or alternatively during manufacturing or a vehicle inspection.

### The Perfect Diagnostic Tool

As a specialist for vehicle diagnostics, Softing Automotive's DTS.monaco is the ideal tool for running the whole range of test cases. The all-in-one engineering tester is a tool for diagnostic testing, analysis and documentation and uses a manufacturer-neutral expert system which has been grown at Softing over decades. It has a modular structure and is based on the OTX and ODX standards. Softing DTS.monaco provides configurable interfaces which adapt flexibly to the particular test step. What are



Softing DTS.monaco provides a large number of graphic instruments for measuring and diagnostics

referred to as "layouts" in the workspace help the user to arrange the working steps necessary for the relevant test process logically and efficiently and to position the specially developed diagnostic control elements. Softing DTS.monaco can be used to test communication, analyze the data on the bus, test the ODX data against the ECU as well as read and clear the error memory. The engineering tester supports the display of measurement values, actuator testing, flash memory programming and ECU parameterization. Furthermore, this allows variants to be detected and coded, routines run in ECUs, functions for the legally prescribed on-board diagnostic scope to be tested and individual sequences to be created and run.

Users benefit directly from the deployment of DTS.monaco. The combination of several separate tools in a multi-lingual platform can lead to reduced costs and shorter familiarization times. Intuitive operation and pre-configured templates make fast results possible. Thanks to the early detection and rectification of

communication problems and function errors, the quality of both the vehicles developed and their components increases. What is more, DTS.monaco offers the complete documentation of communication data and test results.

#### Websites

**Softing DTS.monaco**  
<https://bit.ly/2L7ICcu>



**Softing AG**  
[www.automotive.softing.com](http://www.automotive.softing.com)

