(expleo)

MESSINA

Virtual Validation and Test Automation

Modular

- Modular configurable test platform for development of ECU functions – from model to HiL test bench
- Highly scalable signal acquisition based on EtherCAT

Powerful

- Consistent test automation
- Real-time runtime system
- Environment for virtual validation, e.g. advanced driver assistance systems

Efficient

- Integration tests by simulation or real execution of several ECU functions in any combination
- Including evolutionary testing for the search-based generation of test scenarios
- Intuitive user interface

Application Area

MESSINA is a powerful real-time test system for the validation of ECU functions in early phases. Its scope of application includes the test of models, software components and control units on the HiL test bench. For integrated testing of ECU functions with different maturity levels, MESSINA allows to test them in any combination. This unique consistency of MiL, SiL and HiL test as well as the flexible configuration of integration test enable an efficient and cost-optimized test process.

Standard interfaces such as FMI or EtherCAT faciliate the integration of models, simulations or hardware components. In combination with MODICA or TESTONA, our tools for systematic test design, MESSINA offers a fully auto-mated test process – from the test specification and generation to the test execution and evaluation.

Evolutionary Testing

For the validation of particularly complex functions in a system, MESSINA offers the feature of evolutionary testing. This is an iterative, search-based test procedure, that can autonomously detect critical situations for the test object and generate appropriate tests.

MESSINA
Test Platform for MiL, SiL and HiL

MESSINA References

Camera-HiL
Test of camera-based driver assistance functions such as lane keep assist systems or traffic sign detection

MESSINA RS
Robot-based test automation system for infotainment-, interior- and other user interfaces

ANCONA
EtherCAT-based HiL test system with a wide range of components for signal conditioning as well as modules for the connection with various sensors and actuators

Modular-HiL
Real-time HiL test system for the validation of software-based systems and networking controllers units

Key Features

MiL/SiL: software component test in early development phases

HiL: component and integration test on the test bench

Modular and open architecture
- Model integration, e.g. with Matlab / Simulink
- Support of FMI-standard
- ECU connection incl. CAN, LIN, AIO, DIO

EtherCAT protocol
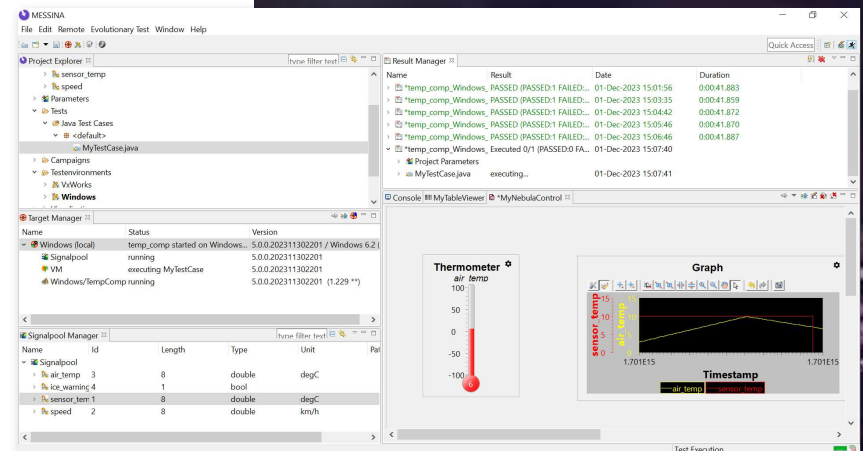combines high scalability with low costs for signal transmission

Test execution in real time

Evolutionary testing

Parameterizable test cases
provide an easy generation of a large number of executable test scenarios and variants from generic test templates

Generation of test sequences
in different notations, such as UML, Java

Further information:
products.expleogroup.com/messina

About Expleo

Expleo is a global engineering, technology and consulting service provider that partners with leading organisations to guide them through their business transformation, helping them achieve operational excellence and future-proof their businesses.

Expleo benefits from more than 40 years of experience developing complex products, optimising manufacturing processes, and ensuring the quality of information systems. Leveraging its deep sector knowledge and wide-ranging expertise in fields including AI engineering, digitalisation, hyper-automation, cybersecurity and data science, the group's mission is to fast-track innovation through each step of the value chain.

As a responsible and diverse organisation, Expleo is committed to doing business with integrity and working towards a more sustainable and secure society. Expleo boasts an extensive global footprint, powered by 15,000 highly-skilled experts delivering value in 30 countries.

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