AVL

E-Library – Plug and Play Approach to E-Testing

THE CHALLENGE

The rapid shift from conventional to electrified vehicles disrupted the established powertrain testing and development approach.
- Electrification altered key premises since
- Fundamental technology changed
- Required competency changed
- Qualified staff availability changed

Consequently, test facilities and product development teams, at new entrants and established automotive firms alike, are facing critical challenges. Faster "time to market" has become crucial. Due to cost pressure, balanced investments and boosted returns are a pressing topic. At the core, product development, testing and building up of electrification competencies hinges on the much needed know-how.

THE OBJECTIVE

A mindful approach is taken to address key challenges and to ease engineering and testing efforts. Our motivation is to:
- Introduce simplicity in dealing with e-testing complexity
- Provide a fast track to productivity
- Create confidence that targets will be met

THE SOLUTION

E-Library is a package of ready-to-run global standard tests, along with intelligent data analysis and built-in reporting. It supports test facility and powertrain engineering managers and their teams to accelerate product testing, certification and developing competency.

WHAT IS E-LIBRARY?
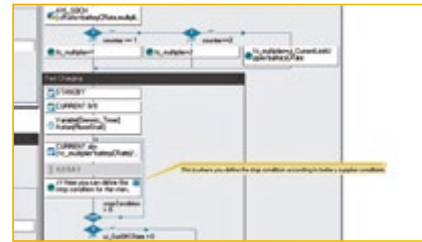
1 PACKAGED TEST METHDOLOGY

A robust test plan for product development and/or homologation requires understanding of global and regional testing standards and methods (e.g. ISO, SAE, GB etc.). E-Library packages the know-how required by the respective standards together with AVL's experience into a set of complete test procedures. The knowledge transfer of test methodologies and sought-after comparative study of various global standards are as well provided.

Global and regional standard tests

Performance — Homologation
Functional — Safety
Reliability — Abuse
Environmental — Health checks
And more…

Vital global and regional test packages at your fingertips
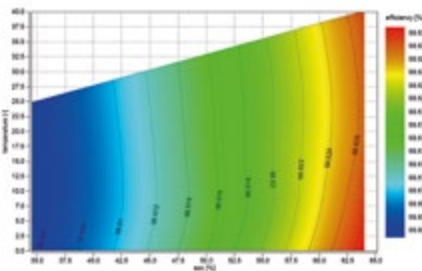
2 READY TO RUN TESTS

Automation system setup and test sequence scripting are typical time-consuming tasks. E-Library is a set of pre-built, validated and fully customizable test scripts that are ready to use. They can be implemented in your test lab with minimal activation effort.

Pre-built and commented test scripts for ready use and easy customization

3 INSTANT EVALUATION

Purposeful test data interpretation requires an effective post-processing chain (file handling, data analysis, calculation, graphics/plotting, report generation etc.). E-Library includes intelligent, automated data post-processing with built-in calculations, plots, report generation and email-based communication. This enables engineers to quickly asses the quality of measured data and the validity of test results.

Energy efficiency: Easy and innovative data visualizations along with industry standard plots

BENEFITS

E-Library offers the following:
- Compliance with (global) testing standards
- Fast ramp-up of productive e-testing
- Well-informed development decisions
- Steep learning curve of staff (learning while doing)

E-LIBRARY SCOPE

Battery   E-Drive   Fuel Cell   E-Axle   Inverter

70+ fully prepared test procedures[1]

16x faster to productivity[2]

55% cost reduction compared to alternatives[2]

1) Represents E-Library for Battery, E-Motor, Inverter, Fuel Cell. E-Axle.
2) Evaluated on an AVL battery testbed and may vary for other applications.

FIND OUT MORE

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