

# Solution for Evaluation, Assessment and Reporting of Simulation and Test Result Data

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## 1 Introduction

Today, product development processes are usually supported by physical and virtual tests. The amount of test and result data increase continuous due to higher complexity of the products and an increasing number of legal and consumer requirements. To enable the development engineer the handling of that increasing complexity the implementation of efficient development tools as well as the standardization and automatization of test and simulation processes becomes more relevant. In both areas, SCALE provides powerful solutions over the entire process chain. In that contribution, two modular software components in that field should be introduced.

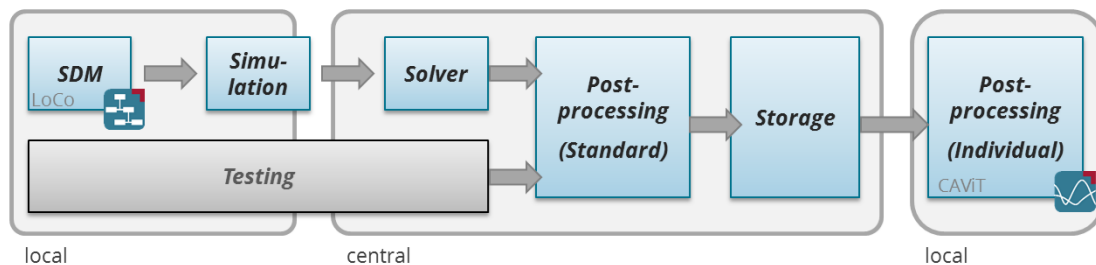


Fig.1: Test and Simulation Data Process (schematic)

## 2 Result Extraction and Modification

The first part of the presentation is dedicated to the extraction and processing of test result data. For this purpose a general environment, which allows the description of the relevant result components, is provided. With the presented approach it is possible to extract similar results from different solvers with identical directives. Furthermore the modification of time history channels and the computation of scalar values for simulation and physical test become possible with identical methods. In the presentation the idea, implementation and application of this solution is introduced in detail.

## 3 Reporting

Results of simulation and physical tests are usually reported on slides or other documents. For this task a solution is introduced that enables the automated generation and description of pages in a very general manner. By the use of this general approach the solution becomes independent on the page renderer and enables a flexible adaption on the environment condition and special needs of the customer. In the presentation, the reporting module is illustrated with the aid of some relevant examples of application.

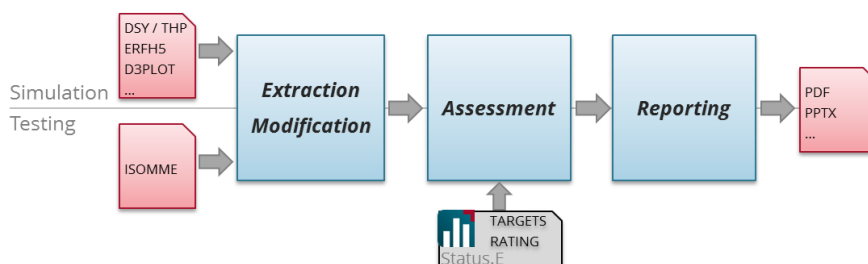


Fig.2: Process components for simulation and test data processing, assessment and reporting

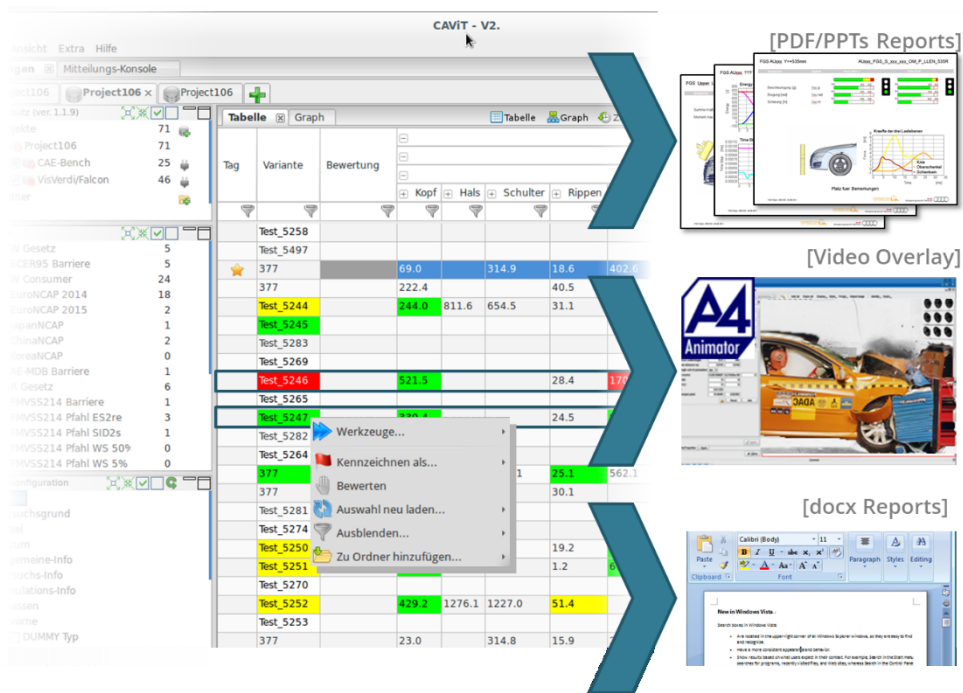


Fig.3: On the fly generation of reports based on selected simulation and test result data