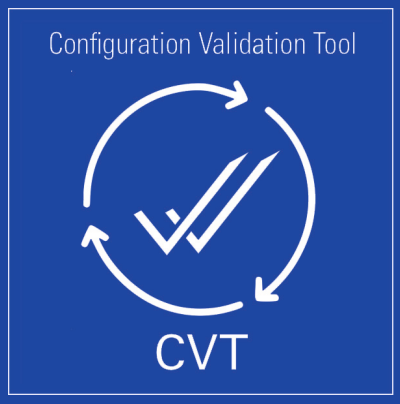


Test Configurator

Using the Test Configurator, customized test cases are generated according to customer specifications for a wide range of application scenarios in station control technology. The test data can be imported via an SCD file. The flexible import scripts not only enable the handling of standard formats but also support all individual, customer-specific elements.

Test Runner

The Test Runner provides the option of executing the previously configured test case in its entirety or repeating specific test scenarios in a targeted manner.

IED Simulation

The H&S CVT includes an integrated IED simulation for IEC 61850 servers and clients, which can simulate all IEDs of an existing SCL file. If required, the tool can automatically configure the IP addresses required for the simulation on the network interface. Once the simulation is complete, the old configuration is automatically restored. Network interface configurations can also be easily exported, imported, and shared.

Test Report Configurator

The H&S Test Report Configurator provides a user-friendly display of the test reports. The order and layout correspond to the layout in the graphical Test Runner, to make it easier for the user to find their way around. Filter functions for test results provide a quick overview of warnings and errors in the tested functions. In addition, each test contains all information down to the level of sent and received telegrams, so that the test protocol can also be used directly for error diagnosis. The test report can be printed as a PDF for documentation purposes and is suitable as a FAT test report due to the detailed test documentation with time stamps.

H&S technologie

CONFIGURATION VALIDATION TOOL

System testing in station automation

Ensuring a reliable supply of electrical energy is of crucial importance for modern business and production locations. Safe and smooth operation of the substations and their control systems plays a central role in this. Comprehensive and high-quality component and system testing is essential to ensure error-free operation of the station automation. The H&S Configuration Validation Tool (CVT) automates the execution of individual test scenarios for control systems. It supports the IEC 61850 and IEC 60870-5-104 protocol interfaces and the interface to the H&S process simulation IPS-20. Due to the clear separation of test creation and execution, as well as the intuitive workflow and ease of use, the test execution can be carried out independently after only a short training session, without the need for a deeper understanding of the components to be tested. Experienced personnel can benefit from significant efficiency gains due to the speed of the tests and the ability to test multiple components simultaneously. These time savings contribute directly to a more efficient and resource-saving way of working. The resulting test report, which can optionally be printed, already meets the requirements for a FAT (Factory Acceptance Test) due to the integrated time stamps and detailed documentation of the entire test process.

1. TEST CASE GENERATION USING THE TEST-CONFIGURATOR

- Import of SCL file
- Selection of test case
- Selection of test data

2. TEST CASE IMPLEMENTATION USING TEST RUNNER

- Automated, sequential execution of the created tests
- Display of all executable test cases

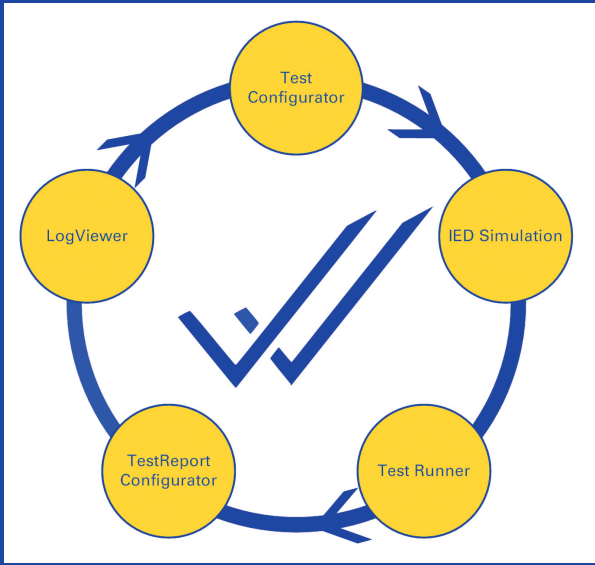
3. TEST REPORT

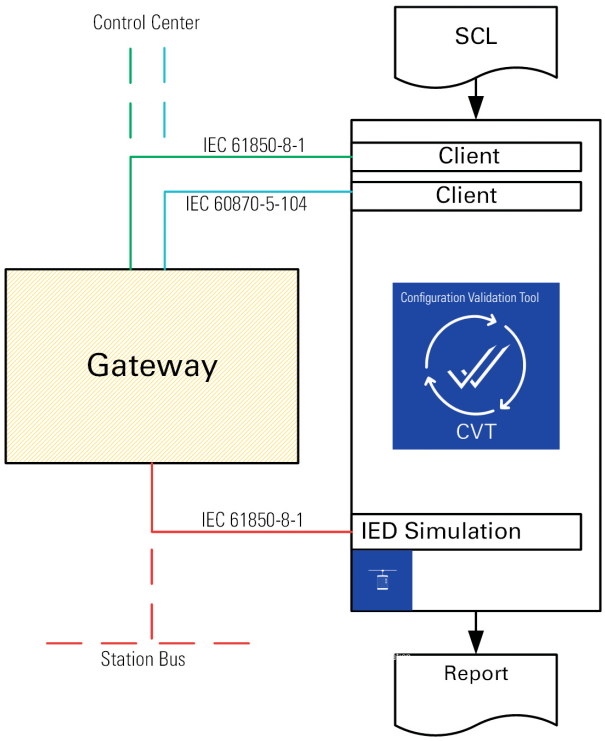
- Output of the test result in a filterable structured form
- Can be printed as a PDF
- Level of detail meets FAT requirements

CONFIGURATION VALIDATION TOOL

EXAMPLE: GATEWAY TEST WITH THE H&S CVT

The CVT overview page includes a log view that provides an initial overview of the console output of all CVT components. In addition, the included Sentinel Log Viewer provides detailed logging information with extensive filter functions for real-time diagnostics of the test procedure.





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