

KEMA IEC 60870-5 Test Suite

What if your equipment appears to be non-interoperable?



IEC 60870-5 Test Suite

The importance of assuring interoperability in your control systems



Our Test Suite comes with six months of free services

- > Expert opinion on test results -
You can ask our expert opinion about your test results. If you have issues you would like to discuss, we will help you to analyze your loggings
- > Helpdesk - The helpdesk is run by specialists of KEMA and guarantees fast response times. The helpdesk is also the place to submit change requests.
- > Updates - All available software updates via e-mail or Internet



One of the common standards used for data communication and remote control activities is the IEC 60870-5 protocol series. It is widely in use for supervisory control and data acquisition regarding power transmission grids. This communication protocol is optimized for the efficient and reliable exchange of process data and commands with geographically remote locations. By using standardized protocols, equipment from many different suppliers can be made to interoperate. Although IEC 60870-5 is an international standard, non-interoperability is a present risk. To prevent problems, it is necessary to investigate interoperability before going live.

To help you with all your IEC 60870-5 testing, KEMA designed the IEC 60870-5 Test Suite. The KEMA IEC 60870-5 Test Suite is available in a 101, 103 or 104 version and includes

- > IEC 60870-5 Simulator
- > IEC 60870-5 Analyzer

Our KEMA IEC 60870-5 Test Suite is widely in use by satisfied customers, being mainly product manufacturers, Distribution System Operators (DSOs) and Transmission System Operators (TSOs). This Suite is part of a series of test tools and suites for a large variety of communications protocols for the energy sector.

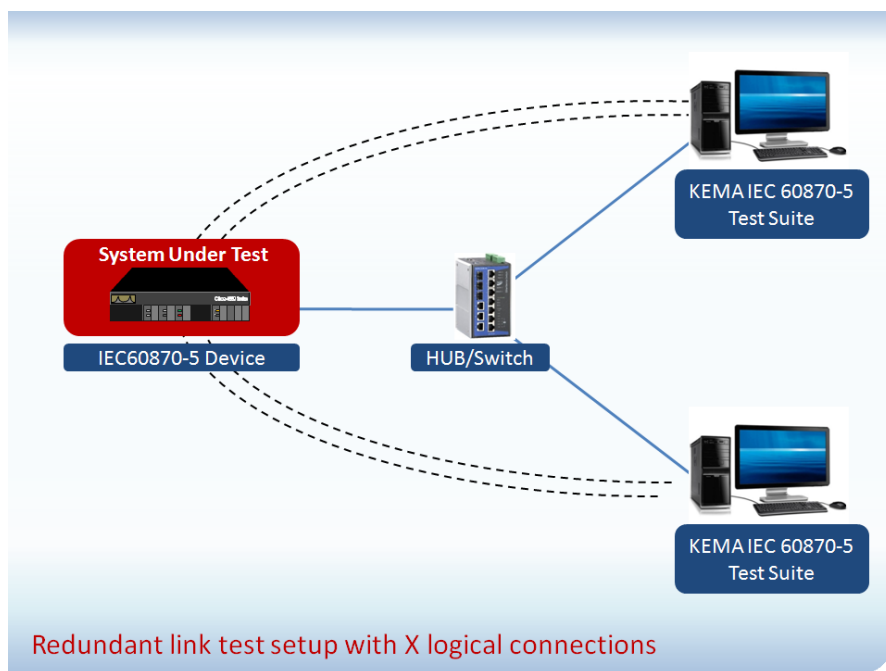
IEC 60870-5 Simulator

Do you have a solution for all-round testing of your IEC 60870-5 implementation?

To have a perfectly functioning and reliable communication environment, it is very important to have tested all devices before integration. Also, during operation it is necessary to check and tune your environment to create a maximized availability. We at KEMA have experienced that testing is very important to keep everything up and running. Besides that, we think testing should be easy. That is why KEMA developed the IEC 60870-5 Simulator.

These products enable you to

- > test and analyze devices or even your whole environment on data link errors, interoperability and operational issues
- > develop and implement the IEC 60870-5 Protocol
- > test the conformance of your product to the official IEC 60870-5 Protocol test plans
- > develop your own customized test plan



The KEMA IEC 60870-5 Simulator enables you to send, receive, analyze and store IEC 60870-5-101 and 104 communication, either automatically or by simply using the manual control buttons. Next to conformance testing, the KEMA IEC 60870-5 Simulator is the tool for troubleshooting, protocol development, active testing, factory and site acceptance testing. Furthermore, the well-designed GUI and in-built protocol intelligence makes the IEC 60870-5 Simulator user-friendly. The KEMA IEC 60870-5 Simulator is essential to achieve your interoperability ambitions.



Technical specifications

- > integrated official IEC 60870-5-601 and 604 conformance test plan
- > communication link check
- > decode received frames and report errors
- > supports all IEC 60870-5 standard procedures such as general interrogation, file transfer, clock synchronization and command transmission
- > define all available ASDU types in IEC60870-5-101 and 104 (e.g. single points, double points, short floating points)
- > support of complicated behavior, including
 - redundant links
 - reversed direction communication
 - multiple common addresses

