

DATA SHEET

IEEE 2030.5 Test Tools

Customers have trusted QualityLogic for its certification test tools, technical workshops, and testing services to validate the interoperability of IEEE 2030.5 products and conformance to the specification.

OVERVIEW

In the Smart Energy market, early products set expectations – positive or negative. That's why it's critical to be sure your products comply with relevant standards, work within smart grid systems, and inter-operate with other products. QualityLogic's interoperability experts have the expertise to help you understand, create, validate, and certify interoperable Smart Energy products.

SOLUTION AT A GLANCE

The QualityLogic IEEE 2030.5 Test System includes four test suites – Ad Hoc Testers for IEEE 2030.5 clients and servers and Functional Test Suites (FTS) for IEEE 2030.5 clients and servers.

Functional Test Suites (FTS)

The IEEE 2030.5 CSIP Functional Test Suites (FTS) are a quick, convenient way to test IEEE 2030.5 device functional conformance against the SunSpec CSIP certification specification. These test suites implement all the CSIP required test cases and are used by authorized test labs to officially certify devices. The test suites are designed to be both pre certification tests for vendors and certification testing by Nationally Recognized Test Labs.

KEY BENEFITS

Leader in Interoperability

QualityLogic has developed the industry's first test tools and testing services to ensure the interoperability of IEEE 2030.5 products and conformance to the IEEE 2030.5, CSIP, CSIP Australia, and related specifications.

Approved as the Only CSIP Certification Test Tool

QualityLogic's Test Tools are the first to be approved by SunSpec for their IEEE 2030.5 CSIP Certification Program.

Domain Expertise

QualityLogic works with industry alliances and consortiums to design, develop, and support test tools for certification programs for smart grid standards. Our IEEE 2030.5 experience started in 2010, and we continue to contribute to the development and testing of new IEEE 2030.5, CSIP, CSIP Australia, SAE J3072, and other V2G standards.

For Australia, QualityLogic offers the CSIP Australia Functional Test Suite (FTS) designed to meet the certification requirements for the Australian national certification. These tests are based on the CSIP Australia Test Procedures developed by the DER Integration API Technical Working Group and covers either the client or server DER systems.

Our FTS product can be used to test any of the CSIP client types (DER, Aggregator, EMS) or DERMS system for compliance with the CSIP certification test specification. The test tool is an easy-to-use tool that provides individual test cases that can be selected and executed by the user in any order. It provides full real-time analysis of the IEEE 2030.5 messages and behaviors of the target Device Under Test (DUT) and provides a Pass, Fail, or Warning for each test case. The test results are directly used by the Test Lab for formal evaluation for certification compliance.

AdHoc Testers

IEEE 2030.5 Ad Hoc Testers are actual conforming implementations of IEEE 2030.5 Client and Server, and they provide real-world IEEE 2030.5 event simulations and thorough analysis of IEEE 2030.5 messages. QualityLogic's IEEE 2030.5 Ad Hoc Testers allow you to set up complex scenarios for IEEE 2030.5 clients and servers and ensure conformance to the IEEE 2030.5 Application Protocol Specification.

The two testers, IEEE 2030.5 Client Ad Hoc Tester and the IEEE 2030.5 Server Ad Hoc Tester, support all commonly implemented elements of the Application Protocol Specification. The tools provide you with the ability to simulate "golden reference" implementations of IEEE 2030.5 compliant products and conduct interoperability testing.

The Ad Hoc testers are valuable for exploring use case scenarios by simulating devices or head-end servers. They provide conformance checking as well as detailed message logs for analysis and debugging, including the SAE J3072 V2G and CSIP Australia profile.

Ad Hoc Testers provide test coverage for many different smart energy functions including DER, Demand Response, Pricing, Metering, Messaging, Energy Flow Reservation, and related IEEE 2030.5 function sets and resources. The tools also provide test coverage for the SAE J3072 communication profile, which supports IEEE 1547 based V2G functions between EVSE and EV. CSIP Australia extensions are also supported by the Ad Hoc Tester. Users can use the Ad Hoc Testers to perform "what if" test conditions on the fly, including support for other grid codes.

RELATED IEEE 2030.5 TEST SERVICES

IEEE 2030.5 Developer Training and Support:

2-day on-site workshops and email and phone Technical Support for professionals interested in the IEEE 2030.5, CSIP and CSIP Australia standards.

Test Planning, Development, and Execution:

We can offer valuable services that save time and money while ensuring the commercial quality of products.

Headquarters

9576 West Emerald St
Boise, ID 83704

California

2245 First Street, Suite 103
Simi Valley, CA 93065

Oklahoma

4045 NW 64th Street, Suite 306
Oklahoma City, OK 73116

