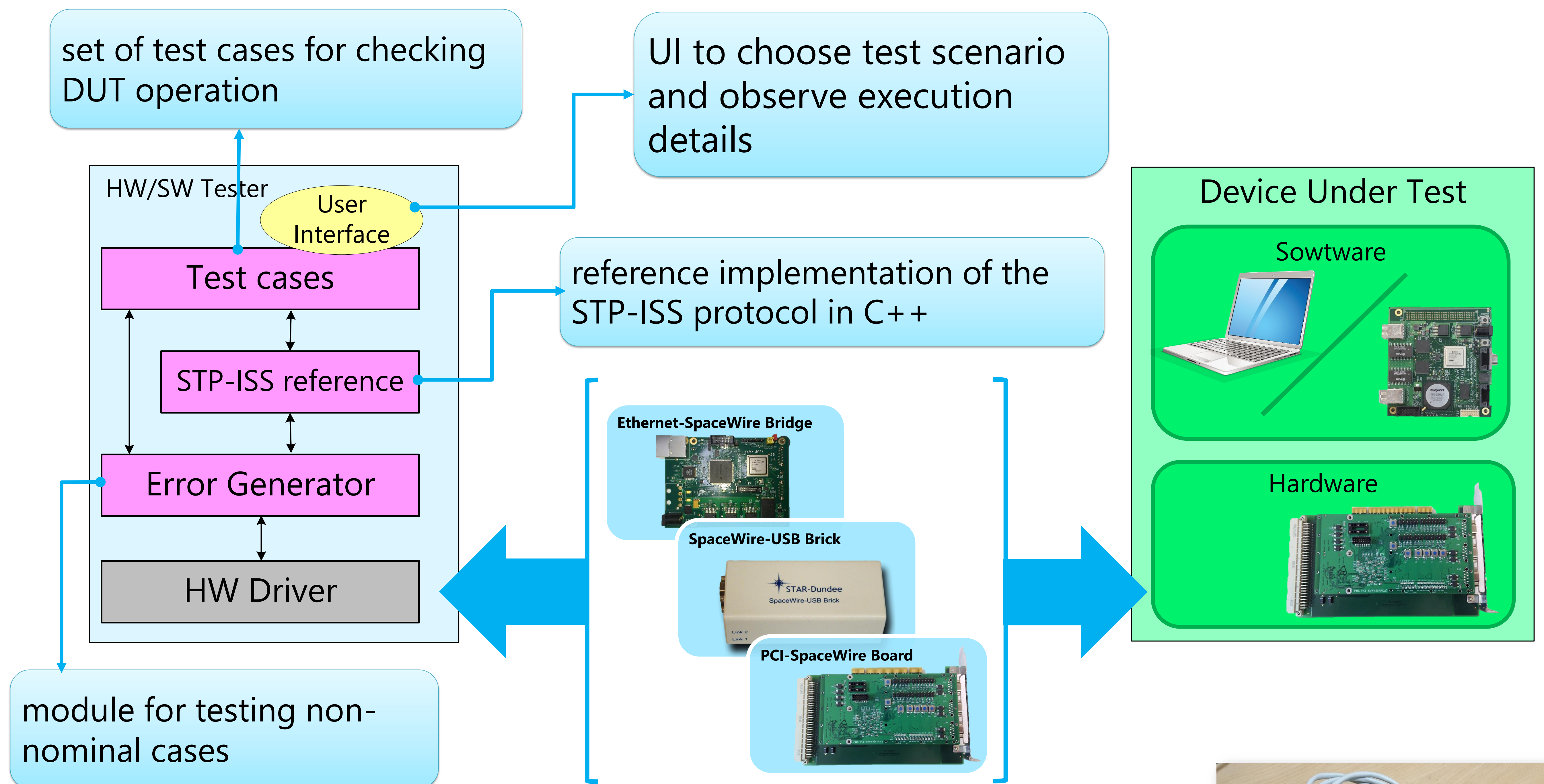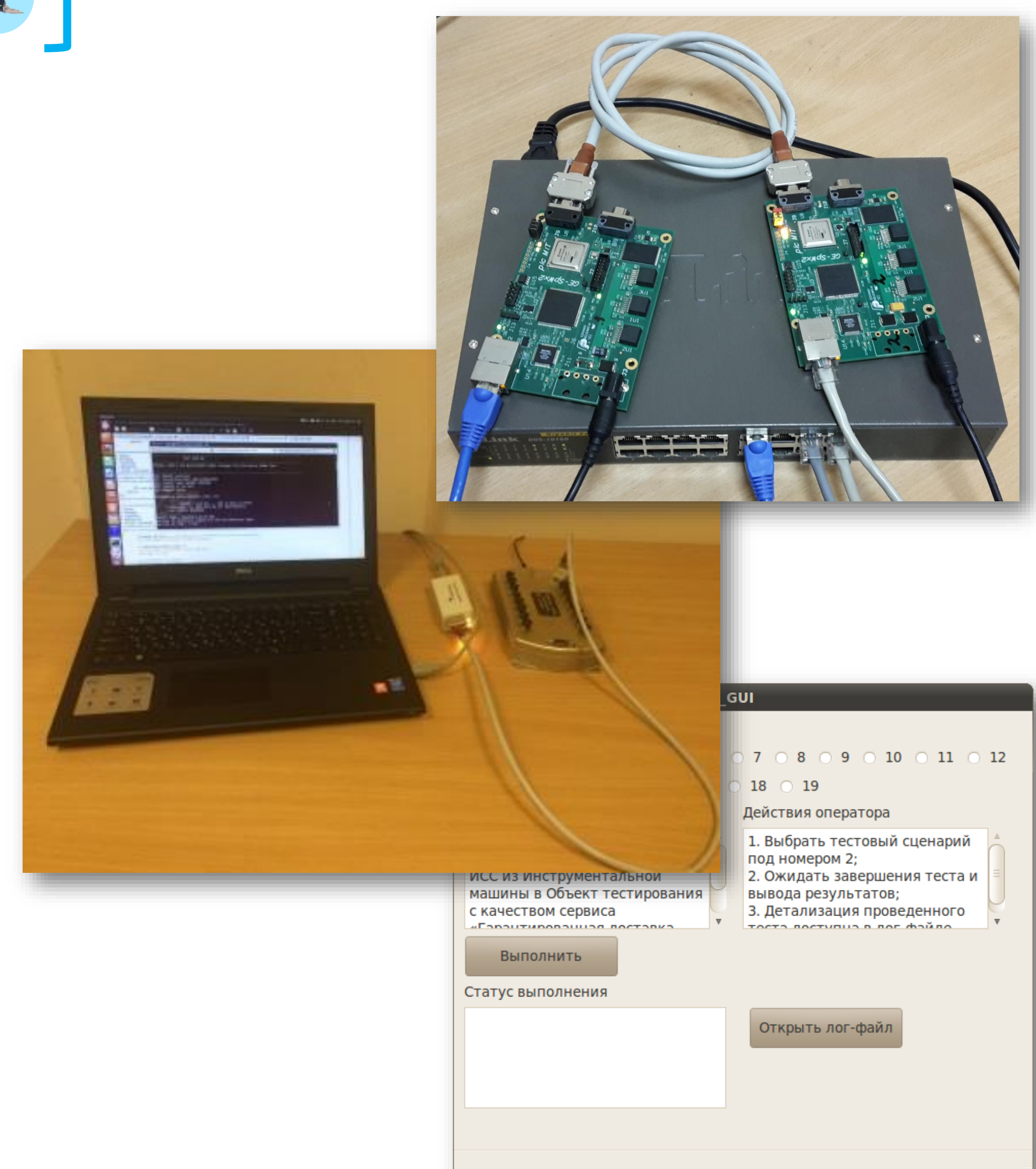**Software-to-Hardware Tester for STP-ISS Transport Protocol (S2HT)** is intended for conformance testing of onboard equipment with hardware of software implementation of the STP-ISS transport protocol.

set of test cases for checking DUT operation

UI to choose test scenario and observe execution details

HW/SW Tester

User Interface

Test cases

STP-ISS reference

reference implementation of the STP-ISS protocol in C++

Error Generator

HW Driver

module for testing non-nominal cases

Ethernet-SpaceWire Bridge

SpaceWire-USB Brick

STAR-Dundee
SpaceWire-USB Brick

PCI-SpaceWire Board

Device Under Test

Sowtware

Hardware

The Software-to-Hardware tester is able to test the following STP-ISS mechanisms:

➢ assembling and disassembling of STP-ISS user data packets and service packets;
➢ data transmission mechanisms;
➢ best-effort quality of service;
➢ guaranteed quality of service;
➢ error detection and recovery mechanisms;
➢ SpaceWire time-codes transmission and reception.

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