



TSEP

TECHNICAL SOFTWARE ENGINEERING PLAZOTTA

Expert knowledge for your needs

TSEP collaboration with the LXI Consortium



LAN eXtensions for Instrumentation

[Who is TSEP?](#)

TSEP is a software and hardware development company, which was founded in 1988 and employs today more than 20 staff members with different skills. TSEP develops complete solutions for measurement devices and test systems.

TSEP had the first experiences with LXI in 2005 while implementing the LXI Standard 1.0 for a German measurement company. Over the years, TSEP has implemented the complete standard for different companies. 2014 the LXI Consortium initiated the development of a reference implementation, which was designed and developed by TSEP.

Since 2014 TSEP is also a participating LXI member. TSEP promotes and works actively on the LXI standard, mainly in Europe.

"On behalf of the LXI Consortium, I would like to thank TSEP and Peter Plazotta, TSEP CEO, for the tremendous contributions they have made to the LXI Consortium and its members. TSEP is an extremely valuable member and partner for the LXI Consortium. One of TSEP's many contributions was to develop a T&M industry-first reference design implementation of a T&M industry standard, the LXI Reference Design implementation of the LXI Standard for the LXI Consortium membership. I am excited that TSEP continues to be an active member and partner with the LXI Consortium!" said Steve Schink, President of the LXI Consortium.

[LXI Reference Design](#)

In 2014 the LXI Consortium wanted to have their own reference implementation for the LXI Standard 1.4. The LXI Consortium was drawn to TSEP by the LXI Director Jochen Wolle (Rohde & Schwarz) and was then invited to the Dallas plug fest 2014 to present their concept of a reference implementation. TSEP was subsequently commissioned by the LXI consortium with the implementation. A working group of LXI consortium was created, which coordinated the design and implementation in close cooperation with TSEP. TSEP collected the existing requirements and they were evaluated in the working group. Not all requirements of the LXI 1.4 standard were then adopted into the Reference Implementation. From 2014 until the end of 2015, TSEP worked very closely with the LXI consortium and some active LXI members. The resulting design and implementation were reviewed and adapted accordingly. TSEP participated at every plug fest to show the current progress on the design and implementation of the LXI Reference Design. These plug fests were also a good opportunity to discuss the issues and current progress. In a later stage the current implementation was also tested against the LXI Conformance Test Suite.

At the end of 2015 the version 1.0 of the LXI Reference Design was finished and tested. Due to the lack of support of VXI-11 in the LXI Reference Design, it could not be certified. This was one of the reasons to adopt the LXI Standard in 2016. It was released as version 1.5 in November 2016. In parallel, the LXI Reference Design 1.1 was released, which supports the standard 1.5 and has been certified for this standard.

[LXI Reference Design Support](#)

In parallel to the design and implementation of the LXI Reference Design, TSEP started to support LXI members to use the LXI Reference Design in their devices. TSEP offers a wide range of different support levels, which start with answering questions about the LXI Standard and the LXI Reference Design and goes all the way to complete integration of the LXI Reference Design into the customers' measurement devices.

TSEP also maintains questions on the LXI vendor forum, which are related to the LXI Reference Design.

[LXI Conformance Test Suite](#)

TSEP has also consolidate the current LXI Conformance Test Suite to support modern Operating Systems, such as Windows 10. Also an installer was introduced which allows the LXI member to easily install the LXI Conformance Test Suite. TSEP has clarified and documented the necessary used hardware and third party software.

[TSEP as LXI Test House](#)

In 2015 TSEP decided to become also an LXI Test House. Now TSEP supports LXI members to certify their devices or do the entire certification of their devices. In 2017 TSEP plans to enhance their LXI test spectrum with the LXI Clock Synchronization.

[TSEP as active LXI member](#)

TSEP is an active member which participates in working groups and at the plug fests. TSEP also works actively on new features for future LXI Standards, such as Cyber Security. TSEP also promotes the LXI Standard in Europe, with several articles and customer discussions. TSEP also tries to convince TSEP customers of the use of the LXI Standard for their measurement devices.