

USENIX Security '24 Artifact Appendix: SoK: Security of Programmable Logic Controllers

Efrén López-Morales
Texas A&M University-Corpus Christi

Ulysse Planta
CISPA Helmholtz Center for Information Security

Carlos Rubio-Medrano
Texas A&M University-Corpus Christi

Ali Abbasi
CISPA Helmholtz Center for Information Security

Alvaro A. Cardenas
University of California, Santa Cruz

A Artifact Appendix

A.1 Abstract

In our paper, we provide a systematization of knowledge that covers 133 research papers that account for 17 years of research on the security of PLCs. This SoK produced two artifacts. A systematic literature review dataset and a threat taxonomy called *ICS² Matrix*. The dataset is available at <https://github.com/efrenlopezm/plc-sok-dataset> and the threat taxonomy is available at <https://github.com/efrenlopezm/ics2matrix>.

A.2 Description & Requirements

A.2.1 Security, privacy, and ethical concerns

Our artifacts do not pose any security or privacy risks because they do not include any code.

A.2.2 How to access

The systematic literature review dataset is available at <https://github.com/efrenlopezm/plc-sok-dataset/tree/ebeb195e5969d99061302950bb173c6d997be30e>.

The threat taxonomy *ICS² Matrix* is available at <https://github.com/efrenlopezm/ics2matrix/tree/e60ba236a45483bec81b16677b8c71314267f235>.

A.2.3 Hardware dependencies

None.

A.2.4 Software dependencies

The dataset is available as a *.csv* file with no software dependencies. The *ICS² Matrix* is available as a *.xlsx* file which requires a spreadsheet software such as Microsoft Excel or Apache OpenOffice.

A.2.5 Benchmarks

None.

A.3 Set-up

A.3.1 Installation

No installation required.

A.3.2 Basic Test

Please see the instructions provided [here](#) on how to use the *ICS² Matrix*.

A.4 Notes on Reusability

We hope other researchers will use the systematic literature review data to further explore the security of PLCs by analyzing it for purposes other than those discussed in our paper. We also hope that the *ICS² Matrix* will be used by other researchers to classify TTPs used to target Industrial Control Systems. We welcome pull requests on both of these artifacts' GitHub repositories.

A.5 Version

Based on the LaTeX template for Artifact Evaluation V20231005. Submission, reviewing and badging methodology followed for the evaluation of this artifact can be found at <https://secartifacts.github.io/usenixsec2024/>.