

Security Bulletin LFSEC00000125

Title

InduSoft Web Studio and InTouch Machine Edition - Remote Code Execution Vulnerability

Rating

Critical

Published By

Schneider Electric Software Security Response Center

Overview

Schneider Electric Software, LLC ("Schneider Electric Software") has created a security update to address vulnerabilities in:

- InduSoft Web Studio v8.1 and prior versions
- InTouch Machine Edition 2017 v8.1 and prior versions

The vulnerabilities, if exploited, could allow an un-authenticated malicious entity to remotely execute code with high privileges.

Schneider Electric Software recommends that organizations evaluate the impact of these vulnerabilities based on their operational environment, architecture, and product implementation.

Recommendations

Customers using **InduSoft Web Studio v8.1 or prior versions** are affected and should upgrade and apply **InduSoft Web Studio v8.1 SP1** as soon as possible.

Customers using InTouch Machine Edition 2017 v8.1 or prior versions are affected and should upgrade and apply InTouch Machine Edition 2017 v8.1 SP1 as soon as possible.

Background

InduSoft Web Studio is a powerful collection of tools that provide all the automation building blocks to develop HMIs, SCADA systems and embedded instrumentation solutions. InTouch Machine Edition is a highly scalable, flexible HMI designed to provide everything from advanced HMI applications to small-footprint embedded devices. InduSoft Web Studio and InTouch Machine Edition are used in many industries worldwide, including Manufacturing, Oil and Gas, Water and Wastewater, Building Automation, Automotive, Wind and Solar Power.

To identify which version of InduSoft Web Studio or InTouch Machine Edition you have installed:

- On a Windows Desktop or Server operating system, navigate to Windows Programs and Features, locate the "InduSoft Web Studio" or "InTouch Machine Edition" entries and observe the displayed installed version.
- On a Windows Embedded operating system, navigate to the Bin folder in the installation location of InduSoft Web Studio or InTouch Machine Edition and open the file "CEView.ini". The installed version can be observed from the "version=*.*.*" attribute within the file.



Vulnerability Details

InduSoft Web Studio and InTouch Machine Edition provide the capability for an HMI client to read, write tags and monitor alarms and events. A remote malicious entity could send a carefully crafted packet to exploit a stack-based buffer overflow vulnerability during tag, alarm, or event related actions such as read and write, with potential for code to be executed. The code would be executed under high privileges and could lead to a complete compromise of the InduSoft Web Studio or InTouch Machine Edition server machine.

Security Update

The following Security Updates address the vulnerabilities outlined in this Security Bulletin. April 6, 2018: InduSoft Web Studio v8.1 SP1 April 6, 2018: InTouch Machine Edition 2017 v8.1 SP1

Affected Products, Components, and Corrective Security Patches

The following table identifies the currently supported products affected. Software updates can be downloaded from the Global Customer Support "Software Download" area or from the links below:

Product and Component	Supported Operating System	Security Impact	Severity Rating	Software Security Update
InduSoft Web Studio v8.1 or prior	Multiple, Embedded	Confidentiality, Integrity, Availability	Critical	http://download.indusoft.com/ 81.1.0/IWS81.1.0.zip
InTouch Machine Edition 2017 v8.1 or prior	Multiple, Embedded	Confidentiality, Integrity, Availability	Critical	https://gcsresource.schneider- electric.com/tracking/ConfirmD ownload.aspx?id=22530

Vulnerability Characterization and CVSSv3 Rating

CWE-121: Stack-based Buffer Overflow

InduSoft Web Studio and ITME:
9.8 | <u>CVSS:3.0/AV:N/AC:L/PR:N/UI:N/S:U/C:H/I:H/A:H</u>

Acknowledgements

Schneider Electric Software would like to thank:

- Tenable Research for the discovery and responsible disclosure of this vulnerability.
- **ICS-Cert** for coordination and advisories.



Support

For information on how to reach Schneider Electric Software support for your product, please refer to this link: <u>Schneider Electric Software Global Customer Support</u>.

If you discover errors or omissions in this Security Notification, please report the finding to Support.

Wonderware Security Central

For the latest security information and security updates, please visit Security Central.

Cyber Security Standards and Best Practices

For information regarding how to secure Industrial Control Systems please reference NIST SP800-82r2.

NVD Common Vulnerability Scoring System (CVSS v3)

The U.S. Department of Homeland Security has adopted the common Vulnerability Scoring System (CVSS v3) that provides an open framework for communicating the characteristics and impacts of IT vulnerabilities. CVSS v3 produces a numerical score as well as a textual representation of that score reflecting the severity of a vulnerability. Scores range from 0.0 (no impact) to a maximum of 10.0 (critical impact with minimal effort to exploit). For additional information please refer to the CVSSv3 specifications.

Disclaimer

THE INFORMATION PROVIDED HEREIN IS PROVIDED "AS-IS" AND WITHOUT WARRANTY OF ANY KIND. SCHNEIDER ELECTRIC SOFTWARE AND ITS AFFILIATES, PARENT AND SUBSIDIARIES (COLLECTIVELY, "SCHNEIDER ELECTRIC SOFTWARE") DISCLAIM ALL WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. NO ORAL OR WRITTEN INFORMATION OR ADVICE GIVEN BY SCHNEIDER ELECTRIC SOFTWARE, ITS DEALERS, DISTRIBUTORS, AGENTS OR EMPLOYEES WILL CREATE A WARRANTY AND CUSTOMER MAY NOT RELY ON ANY SUCH INFORMATION OR ADVICE.

SCHNEIDER ELECTRIC SOFTWARE DOES NOT WARRANT THAT THE SOFTWARE WILL MEET CUSTOMER'S REQUIREMENTS, THAT THE SOFTWARE WILL OPERATE IN COMBINATIONS OTHER THAN AS SPECIFIED IN SCHNEIDER ELECTRIC SOFTWARE'S DOCUMENTATION OR THAT THE OPERATION OF THE SOFTWARE WILL BE UNINTERRUPTED OR ERROR-FREE.

IN NO EVENT WILL SCHNEIDER ELECTRIC SOFTWARE OR ITS SUPPLIERS, DEALERS, DISTRIBUTORS, AGENTS OR EMPLOYEES BE LIABLE FOR ANY INDIRECT, INCIDENTAL, SPECIAL, PUNITIVE OR CONSEQUENTIAL DAMAGES, OR DAMAGES FOR LOSS OF PROFITS, REVENUE, DATA OR USE, INCURRED BY CUSTOMER OR ANY THIRD PARTY, WHETHER IN AN ACTION IN CONTRACT OR TORT, EVEN IF SCHNEIDER ELECTRIC SOFTWARE HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. SCHNEIDER ELECTRIC SOFTWARE'S LIABILITY FOR DAMAGES AND EXPENSES HEREUNDER OR RELATING HERETO (WHETHER IN AN ACTION IN CONTRACT, TORT OR OTHERWISE) WILL IN NO EVENT EXCEED THE AMOUNT OF ONE HUNDRED DOLLARS (\$100 USD).

The Schneider Electric industrial software business and AVEVA have merged to trade as AVEVA Group plc, a UK listed company. The Schneider Electric and Life Is On trademarks are owned by Schneider Electric and are being licensed to AVEVA by Schneider Electric.