SSA-258115: DWG File Parsing Vulnerability in Solid Edge before SE2022MP9

Publication Date: 2022-10-11
Last Update: 2022-10-11
Current Version: V1.0
CVSS v3.1 Base Score: 7.8

SUMMARY

Solid Edge is affected by a heap overflow vulnerability that could be triggered when the application reads DWG files. If a user is tricked to open a malicious file with the affected application, an attacker could leverage the vulnerability to perform remote code execution in the context of the current process.

Siemens has released an update for the Solid Edge and recommends to update to the latest version.

AFFECTED PRODUCTS AND SOLUTION

Affected Product and Versions	Remediation
Solid Edge: All Versions < SE2022MP9	Update to SE2022MP9 or later version https://support.sw.siemens.com/product/246738425/download See further recommendations from section Workarounds and Mitigations

WORKAROUNDS AND MITIGATIONS

Siemens has identified the following specific workarounds and mitigations that customers can apply to reduce the risk:

• Do not open untrusted DWG files in Solid Edge

Product-specific remediations or mitigations can be found in the section Affected Products and Solution. Please follow the General Security Recommendations.

GENERAL SECURITY RECOMMENDATIONS

As a general security measure, Siemens strongly recommends to protect network access to devices with appropriate mechanisms. In order to operate the devices in a protected IT environment, Siemens recommends to configure the environment according to Siemens' operational guidelines for Industrial Security (Download: https://www.siemens.com/cert/operational-guidelines-industrial-security), and to follow the recommendations in the product manuals.

Additional information on Industrial Security by Siemens can be found at: https://www.siemens.com/industrialsecurity

PRODUCT DESCRIPTION

Solid Edge is a portfolio of software tools that addresses various product development processes: 3D design, simulation, manufacturing and design management.

VULNERABILITY CLASSIFICATION

The vulnerability classification has been performed by using the CVSS scoring system in version 3.1 (CVSS v3.1) (https://www.first.org/cvss/). The CVSS environmental score is specific to the customer's environment and will impact the overall CVSS score. The environmental score should therefore be individually defined by the customer to accomplish final scoring.

An additional classification has been performed using the CWE classification, a community-developed list of common software security weaknesses. This serves as a common language and as a baseline for weakness identification, mitigation, and prevention efforts. A detailed list of CWE classes can be found at: https://cwe.mitre.org/.

Vulnerability CVE-2022-37864

The affected application contains an out of bounds write past the fixed-length heap-based buffer while parsing specially crafted DWG files. This could allow an attacker to execute code in the context of the current process. (ZDI-CAN-17627)

CVSS v3.1 Base Score	7.8
CVSS Vector	CVSS:3.1/AV:L/AC:L/PR:N/UI:R/S:U/C:H/I:H/A:H/E:P/RL:O/RC:C
CWE	CWE-122: Heap-based Buffer Overflow

ACKNOWLEDGMENTS

Siemens thanks the following party for its efforts:

- Trend Micro Zero Day Initiative for coordinated disclosure

ADDITIONAL INFORMATION

For further inquiries on security vulnerabilities in Siemens products and solutions, please contact the Siemens ProductCERT:

https://www.siemens.com/cert/advisories

HISTORY DATA

V1.0 (2022-10-11):   Publication Date

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