EcoStruxure™ Operator Terminal Expert and Pro-face BLUE

Overview

Schneider Electric is aware of a vulnerability in its EcoStruxure™ Operator Terminal Expert and Pro-face BLUE products.

The EcoStruxure™ Operator Terminal Expert and Pro-face BLUE products are HMI configuration software supporting gestures and UI designs.

Failure to apply the remediation provided below may risk unauthorized code execution by a local user of the Windows engineering workstation, which could result in loss of availability, confidentiality, and integrity of the workstation where EcoStruxure™ Operator Terminal Expert or Pro-face BLUE runtime is installed.

Affected Products and Versions

<table>
<thead>
<tr>
<th>Products</th>
<th>Versions</th>
</tr>
</thead>
<tbody>
<tr>
<td>EcoStruxure™ Operator Terminal Expert</td>
<td>3.3 SP1 and prior</td>
</tr>
<tr>
<td>Pro-face BLUE</td>
<td>3.3 SP1 and prior</td>
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</table>

Vulnerability Details

CVE ID: **CVE-2023-1049**


A **CWE-94: Improper Control of Generation of Code ('Code Injection')** vulnerability exists that could cause execution of malicious code when an unsuspicious user loads a project file from the local filesystem into the HMI.

Note regarding vulnerability details: The severity of vulnerabilities was calculated using the CVSS Base metrics in version 3.1 ([CVSS v3.1](https://cve.mitre.org/cgi-bin/cvename.cgi?name=CVE-2023-1049)) without incorporating the Temporal and Environmental metrics. Schneider Electric recommends that customers score the CVSS Environmental metrics, which are specific to end-user organizations, and consider factors such as the presence of mitigations in that environment. Environmental metrics may refine the relative severity posed by the vulnerabilities described in this document within a customer’s environment.
## Remediation

<table>
<thead>
<tr>
<th>Affected Product &amp; Version</th>
<th>Remediation</th>
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<tbody>
<tr>
<td>Pro-face BLUE v3.3 SP1 and prior</td>
<td>Pro-face BLUE v3.4 includes a fix for this vulnerability and is available for download here: <a href="https://www.proface.com/en/product/soft/blue/v34/new">https://www.proface.com/en/product/soft/blue/v34/new</a></td>
</tr>
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Customers should use appropriate patching methodologies when applying these patches to their systems. We strongly recommend the use of back-ups and evaluating the impact of these patches in a Test and Development environment or on an offline infrastructure. Contact Schneider Electric’s [Customer Care Center](#) if you need assistance removing a patch.

If customers choose not to apply the remediation provided above, they should immediately apply the following mitigations to reduce the risk of exploit:

- Use the project “Set up Password” feature to protect the project file.
- Encrypt project files when stored and restrict the access to only trusted users.
- When exchanging files over the network, use secure communication protocols.
- Only open project files received from trusted source, and it is recommended to share project files only when configured with the encryption feature.
- Use EcoStruxure™ Operator Terminal Expert and Pro-face BLUE software in a secure network environment.
- Use EcoStruxure™ Operator Terminal Expert and Pro-face BLUE software only on a trusted workstation.
- Harden your workstation following the best cybersecurity practices (antivirus, updated operating systems, strong password policies, application whitelisting software, etc.) using the Schneider Electric [Recommended Cybersecurity Best Practices](#) document.

## General Security Recommendations

We strongly recommend the following industry cybersecurity best practices.

- Locate control and safety system networks and remote devices behind firewalls and isolate them from the business network.
- Install physical controls so no unauthorized personnel can access your industrial control and safety systems, components, peripheral equipment, and networks.
- Place all controllers in locked cabinets and never leave them in the “Program” mode.
Schneider Electric Security Notification

- Never connect programming software to any network other than the network intended for that device.
- Scan all methods of mobile data exchange with the isolated network such as CDs, USB drives, etc. before use in the terminals or any node connected to these networks.
- Never allow mobile devices that have connected to any other network besides the intended network to connect to the safety or control networks without proper sanitation.
- Minimize network exposure for all control system devices and systems and ensure that they are not accessible from the Internet.
- When remote access is required, use secure methods, such as Virtual Private Networks (VPNs). Recognize that VPNs may have vulnerabilities and should be updated to the most current version available. Also, understand that VPNs are only as secure as the connected devices.

For more information refer to the Schneider Electric Recommended Cybersecurity Best Practices document.

Acknowledgements

Schneider Electric recognizes the following researchers for identifying and helping to coordinate a response to this vulnerability:

<table>
<thead>
<tr>
<th>CVE</th>
<th>Researchers</th>
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<tr>
<td>CVE-2023-1049</td>
<td>Daan Keuper &amp; Thijs Alkemade (Trend Micro Zero Day Initiative)</td>
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</table>

For More Information

This document provides an overview of the identified vulnerability or vulnerabilities and actions required to mitigate. For more details and assistance on how to protect your installation, contact your local Schneider Electric representative or Schneider Electric Industrial Cybersecurity Services: [https://www.se.com/ww/en/work/solutions/cybersecurity/](https://www.se.com/ww/en/work/solutions/cybersecurity/). These organizations will be fully aware of this situation and can support you through the process.

For further information related to cybersecurity in Schneider Electric’s products, visit the company’s cybersecurity support portal page: [https://www.se.com/ww/en/work/support/cybersecurity/overview.jsp](https://www.se.com/ww/en/work/support/cybersecurity/overview.jsp)

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Our mission is to be your digital partner for Sustainability and Efficiency.

We drive digital transformation by integrating world-leading process and energy technologies, end-point to cloud connecting products, controls, software and services, across the entire lifecycle, enabling integrated company management, for homes, buildings, data centers, infrastructure and industries.

We are the most local of global companies. We are advocates of open standards and partnership ecosystems that are passionate about our shared Meaningful Purpose, Inclusive and Empowered values.

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Revision Control:

<table>
<thead>
<tr>
<th>Version 1.0</th>
<th>Original Release</th>
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<tbody>
<tr>
<td>13 June 2023</td>
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Product Security Office

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