

# Industrial Control Systems and Medical Vulnerability Advisories Reported by CISA in March 2023

Critical Infrastructure (CI)

Fusion (FS)

Vulnerability (VU)

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## Executive Summary

- The U.S. Cybersecurity and Infrastructure Security Agency (CISA) maintains the largest public repository specialized in sharing information about industrial control systems (ICS) and medical device-specific vulnerability disclosures.
- In March 2023, CISA published 34 advisories related to vulnerabilities in ICS or medical devices.
- The advisories presented information on 166 Common Vulnerability Enumeration (CVE) IDs from which 20 received a critical Common Vulnerability Scoring System (CVSSv3) score of 9 or higher.

## Threat Detail

The U.S. Cybersecurity and Infrastructure Security Agency (CISA) continues to maintain the largest public repository specialized in sharing information about industrial control systems (ICS) and medical device-specific vulnerability disclosures. Organizations relying on cyber physical assets such as operational technologies (OT) can benefit from this information and use it as a component of vulnerability management processes or to gain situational awareness. In this document we present a summary of vulnerabilities reported by CISA during March 2023.

## ICS and Medical Vulnerability Disclosure

Mandiant Threat Intelligence extracted all Common Vulnerability Enumeration (CVE) IDs when available from advisories and identified 166 unique values. We include new CVEs and those that were updated to disclose additional information. The most commonly seen CWEs (Common Weakness Enumerations) as reported by CISA were:

- [CWE-416: USE AFTER FREE](#)
  - Once opened, a maliciously crafted FBX file could leverage a use-after-free vulnerability in versions of Autodesk FBX SDK prior to version 2020. Exploitation of this vulnerability could cause the application to reference a memory location controlled by an unauthorized third party and run arbitrary code on the system.
- [CWE-20: IMPROPER INPUT VALIDATION](#)
  - A type confusion vulnerability could allow an attacker to pass arbitrary pointers to a memcmp call, enabling them to read memory contents or enact a denial-of-service condition.

- [CWE-362: CONCURRENT EXECUTION USING SHARED RESOURCE WITH IMPROPER SYNCHRONIZATION \('RACE CONDITION'\)](#)
  - A race condition was found the Linux kernel in perf\_event\_open() which can be exploited by an unprivileged user to gain root privileges. The bug allows to build several exploit primitives such as kernel address information leak, arbitrary execution, etc.
- [CWE-611: IMPROPER RESTRICTION OF XML EXTERNAL ENTITY REFERENCE](#)
  - Versions of VISAM VBASE Automation Base prior to 11.7.5 may disclose information if a valid user opens a specially crafted file.
- [CWE-367: TIME-OF-CHECK TIME-OF-USE \(TOCTOU\) RACE CONDITION](#)
  - DMA attacks on the PnpSmm shared buffer used by SMM and non-SMM code could cause TOCTOU race-condition issues that could lead to corruption of SMRAM and escalation of privileges.

Of all the advisories, ten received a CVSSv3 score of 9 (critical) or higher.

- [Baicells Nova | CISA](#)
  -
- [Akuvox E11 | CISA](#)
  -
- [AVEVA Plant SCADA and AVEVA Telemetry Server | CISA](#)
  -
- [Omron CJ1M PLC | CISA](#)
  -
- [Honeywell OneWireless Wireless Device Manager | CISA](#)
  -
- [Siemens Mendix SAML Module | CISA](#)
  -
- [Siemens SCALANCE, RUGGEDCOM Third-Party | CISA](#)
  -
- [Rockwell Automation ThinManager | CISA](#)
  -
- [Delta Electronics InfraSuite Device Master | CISA](#)
  -
- [ProPump and Controls Osprey Pump Controller | CISA](#)
  -

## Disclosed Vulnerabilities by Vendor

The following figure shows the number of CVEs that were published in CISA advisories during the month, categorized by vendor and severity level. The vendors are ordered by the total number of vulnerabilities reported.

Vendor	Low	Medium	High	Critical
Siemens	3	53	31	4
Delta Electronics		1	9	3
Akuvox		3	6	4
ProPump and Controls, Inc.			5	4
Siemens ProductCERT			8	
Schneider Electric		3	5	
VISAM		7		
SAUTER		1	4	
Rockwell Automation		1	2	1
Autodesk			3	
Honeywell		1	1	1
ABB		2	1	
Baicells				1
Hitachi Energy		2		
AVEVA				1
Omron				1
Mitsubishi Electric			1	
GE Digital			1	
Keysight Technologies			1	
CP Plus			1	
RoboDK			1	
Rittal		1		
Medtronic		1		
B&R Industrial Automation		1		
Step Tools, Inc	1			

Figure 1: CVE count by vendor

## ICS and Medical Vulnerable Products as Reported in March 2023 by CISA

The following table contains a compilation of CVEs reported by CISA for the month of March 2023. Given the structure of CISA advisories, some CVEs may be duplicated if they were seen in multiple advisories.

Advisory	Vendor	Equipment	CVE(s)
<a href="#">Mitsubishi Electric MELSEC iQ-F Series   CISA</a>	Mitsubishi Electric	MELSEC iQ-F Series	<a href="#">CVE-2023-0457</a>
<a href="#">Baicells Nova   CISA</a>	Baicells	Nova 436Q, Nova 430E, Nova 430I, and Neutrino 430	<a href="#">CVE-2023-0776</a>
<a href="#">Rittal CMC III Access</a>	Rittal	CMC III	<a href="#">CVE-2022-40633</a>

<a href="#">systems   CISA</a>			
<a href="#">Medtronic Micro Clinician and InterStim Apps   CISA</a>	Medtronic	Micros Clinician (A51200) app and InterStim X Clinician (A51300) app	<a href="#">CVE-2023-25931</a>
<a href="#">Hitachi Energy Relion 670, 650 and SAM600-IO Series   CISA</a>	Hitachi Energy	Relion 670, 650, and SAM600-IO Series	<a href="#">CVE-2022-3864</a>
<a href="#">Step Tools Third-Party   CISA</a>	Step Tools, Inc	STEPTools ifcmesh library	<a href="#">CVE-2023-0973</a>
<a href="#">B&amp;R Systems Diagnostics Manager   CISA</a>	B&R Industrial Automation	Systems Diagnostics Manager (SDM)	<a href="#">CVE-2022-4286</a>
<a href="#">ABB Ability Symphony Plus   CISA</a>	ABB	Ability Symphony Plus	<a href="#">CVE-2023-0228</a>
<a href="#">Akuvox E11   CISA</a>	Akuvox	E11	<a href="#">CVE-2023-0343</a> , <a href="#">CVE-2023-0355</a> , <a href="#">CVE-2023-0354</a> , <a href="#">CVE-2023-0353</a> , <a href="#">CVE-2023-0352</a> , <a href="#">CVE-2023-0351</a> , <a href="#">CVE-2023-0350</a> , <a href="#">CVE-2023-0349</a> , <a href="#">CVE-2023-0348</a> , <a href="#">CVE-2023-0347</a> , <a href="#">CVE-2023-0346</a> , <a href="#">CVE-2023-0345</a> , <a href="#">CVE-2023-0344</a>
<a href="#">AVEVA Plant SCADA and AVEVA Telemetry Server   CISA</a>	AVEVA	AVEVA Plant SCADA and AVEVA Telemetry Server	<a href="#">CVE-2023-1256</a>
<a href="#">GE iFIX   CISA</a>	GE Digital	iFIX	<a href="#">CVE-2023-0598</a>
<a href="#">Autodesk FBX SDK   CISA</a>	Autodesk	FBX SDK	<a href="#">CVE-2022-41302</a> , <a href="#">CVE-2022-41303</a> , <a href="#">CVE-2022-41304</a>
<a href="#">Omron CJ1M PLC   CISA</a>	Omron	CJ1M PLC	<a href="#">CVE-2023-0811</a>
<a href="#">Rockwell Automation Modbus TCP</a>	Rockwell Automation	Modbus TCP Server Add-On	<a href="#">CVE-2023-0027</a>

<a href="#">AOI Server   CISA</a>		Instruction (AOI)	
<a href="#">Honeywell OneWireless Wireless Device Manager   CISA</a>	Honeywell	OneWireless Wireless Device Manager (WDM)	<a href="#">CVE-2022-46361</a> , <a href="#">CVE-2022-43485</a> , <a href="#">CVE-2022-4240</a>
<a href="#">Siemens Mendix SAML Module   CISA</a>	Siemens	Mendix SAML Module	<a href="#">CVE-2023-25957</a>
<a href="#">Siemens SCALANCE W1750D Devices   CISA</a>	Siemens	SCALANCE W1750D	<a href="#">CVE-2022-4304</a> , <a href="#">CVE-2022-4450</a> , <a href="#">CVE-2023-0215</a> , <a href="#">CVE-2023-0286</a>
<a href="#">Siemens RUGGEDCOM CROSSBOW V5.2   CISA</a>	Siemens	RUGGEDCOM CROSSBOW	<a href="#">CVE-2023-27309</a> , <a href="#">CVE-2023-27310</a>
<a href="#">Siemens RUGGEDCOM CROSSBOW V5.3   CISA</a>	Siemens	RUGGEDCOM CROSSBOW	<a href="#">CVE-2023-27462</a> , <a href="#">CVE-2023-27463</a>
<a href="#">Siemens SCALANCE, RUGGEDCOM Third-Party   CISA</a>	Siemens	Busybox Applet affecting SCALANCE and RUGGEDCOM products	<a href="#">CVE-2018-25032</a> , <a href="#">CVE-2019-1073</a> , <a href="#">CVE-2019-1071</a> , <a href="#">CVE-2019-1125</a> , <a href="#">CVE-2021-4034</a> , <a href="#">CVE-2021-4149</a> , <a href="#">CVE-2017-5715</a> , <a href="#">CVE-2021-26401</a> , <a href="#">CVE-2021-42373</a> , <a href="#">CVE-2021-42374</a> , <a href="#">CVE-2021-42375</a> , <a href="#">CVE-2021-42376</a> , <a href="#">CVE-2021-42377</a> , <a href="#">CVE-2021-42378</a> , <a href="#">CVE-2021-42379</a> , <a href="#">CVE-2021-42380</a> , <a href="#">CVE-2021-42381</a> , <a href="#">CVE-2021-42382</a> , <a href="#">CVE-2021-42383</a> , <a href="#">CVE-2021-42384</a> , <a href="#">CVE-2021-42385</a> , <a href="#">CVE-2021-42386</a> , <a href="#">CVE-2022-0001</a> , <a href="#">CVE-2022-0002</a> , <a href="#">CVE-2022-0494</a> , <a href="#">CVE-2022-0547</a> , <a href="#">CVE-2022-1011</a> , <a href="#">CVE-2022-1016</a> , <a href="#">CVE-2022-1198</a> , <a href="#">CVE-2022-1199</a> , <a href="#">CVE-2022-1292</a> , <a href="#">CVE-2022-1304</a> , <a href="#">CVE-2022-1343</a> , <a href="#">CVE-2022-1353</a> , <a href="#">CVE-2022-1473</a> , <a href="#">CVE-2022-1516</a> , <a href="#">CVE-2022-1652</a> , <a href="#">CVE-2022-1729</a> , <a href="#">CVE-2022-1734</a> , <a href="#">CVE-2022-1974</a> , <a href="#">CVE-2022-1975</a> , <a href="#">CVE-2022-2380</a> , <a href="#">CVE-2022-2588</a> , <a href="#">CVE-2022-2639</a> , <a href="#">CVE-2022-20158</a> , <a href="#">CVE-2022-23036</a> , <a href="#">CVE-2022-23037</a> , <a href="#">CVE-2022-23038</a> , <a href="#">CVE-</a>

			<a href="#">CVE-2022-23039</a> , <a href="#">CVE-2022-23040</a> , <a href="#">CVE-2022-23041</a> , <a href="#">CVE-2022-23042</a> , <a href="#">CVE-2022-23308</a> , <a href="#">CVE-2022-26490</a> , <a href="#">CVE-2022-28356</a> , <a href="#">CVE-2022-28390</a> , <a href="#">CVE-2022-30065</a> , <a href="#">CVE-2022-30594</a> , <a href="#">CVE-2022-32205</a> , <a href="#">CVE-2022-32206</a> , <a href="#">CVE-2022-32207</a> , <a href="#">CVE-2022-32208</a> , <a href="#">CVE-2022-32296</a> , <a href="#">CVE-2022-32981</a> , <a href="#">CVE-2022-33981</a> , <a href="#">CVE-2022-35252</a> , <a href="#">CVE-2022-36879</a> , <a href="#">CVE-2022-36946</a>
<a href="#">Siemens SCALANCE Third-Party   CISA</a>	Siemens	Various third-party components used in SCALANCE W-700 devices	<a href="#">CVE-2018-12886</a> , <a href="#">CVE-2018-25032</a> , <a href="#">CVE-2021-42373</a> , <a href="#">CVE-2021-42374</a> , <a href="#">CVE-2021-42375</a> , <a href="#">CVE-2021-42376</a> , <a href="#">CVE-2021-42377</a> , <a href="#">CVE-2021-42378</a> , <a href="#">CVE-2021-42379</a> , <a href="#">CVE-2021-42380</a> , <a href="#">CVE-2021-42381</a> , <a href="#">CVE-2021-42382</a> , <a href="#">CVE-2021-42383</a> , <a href="#">CVE-2021-42384</a> , <a href="#">CVE-2021-42385</a> , <a href="#">CVE-2021-42386</a> , <a href="#">CVE-2022-23395</a>
<a href="#">Rockwell Automation ThinManager   CISA</a>	Rockwell Automation	ThinManager ThinServer	<a href="#">CVE-2023-27855</a> , <a href="#">CVE-2023-27856</a> , <a href="#">CVE-2023-27857</a>
<a href="#">VISAM VBASE Automation Base   CISA</a>	VISAM	VBASE	<a href="#">CVE-2022-41696</a> , <a href="#">CVE-2022-43512</a> , <a href="#">CVE-2022-45121</a> , <a href="#">CVE-2022-45468</a> , <a href="#">CVE-2022-45876</a> , <a href="#">CVE-2022-46286</a> , <a href="#">CVE-2022-46300</a>
<a href="#">Siemens RADIUS Client of SIPROTEC 5 Devices   CISA</a>	Siemens ProductCERT	RADIUS client of SIPROTEC 5 devices	<a href="#">CVE-2022-38767</a>
<a href="#">Siemens RUGGEDCOM APE1808 Product Family   CISA</a>	Siemens ProductCERT	RUGGEDCOM APE1808 Product Family	<a href="#">CVE-2022-32469</a> , <a href="#">CVE-2022-32470</a> , <a href="#">CVE-2022-32471</a> , <a href="#">CVE-2022-32475</a> , <a href="#">CVE-2022-32477</a> , <a href="#">CVE-2022-32953</a> , <a href="#">CVE-2022-32954</a>
<a href="#">Delta Electronics InfraSuite Device Master   CISA</a>	Delta Electronics	InfraSuite Device Master	<a href="#">CVE-2023-1133</a> , <a href="#">CVE-2023-1139</a> , <a href="#">CVE-2023-1145</a> , <a href="#">CVE-2023-1138</a> , <a href="#">CVE-2023-1144</a> , <a href="#">CVE-2023-1137</a> , <a href="#">CVE-2023-1143</a> , <a href="#">CVE-2023-1134</a> , <a href="#">CVE-2023-1142</a> , <a href="#">CVE-2023-1136</a> , <a href="#">CVE-2023-1141</a> , <a href="#">CVE-2023-1135</a> , <a href="#">CVE-2023-1140</a>
<a href="#">Keysight N6845A Geolocation Server   CISA</a>	Keysight Technologies	N6854A Geolocation Sever	<a href="#">CVE-2023-1399</a>
<a href="#">ProPump and</a>	ProPump	Osprey Pump	<a href="#">CVE-2023-28395</a> , <a href="#">CVE-2023-28375</a> , <a href="#">CVE-2023-28654</a> , <a href="#">CVE-</a>

<a href="#">Controls Osprey Pump Controller   CISA</a>	and Controls, Inc.	Controller	<a href="#">2023-27886</a> , <a href="#">CVE-2023-27394</a> , <a href="#">CVE-2023-28648</a> , <a href="#">CVE-2023-28398</a> , <a href="#">CVE-2023-28718</a> , <a href="#">CVE-2023-28712</a>
<a href="#">ABB Pulsar Plus Controller   CISA</a>	ABB	Pulsar Plus Controller	<a href="#">CVE-2022-1607</a> , <a href="#">CVE-2022-26080</a>
<a href="#">Schneider Electric IGSS   CISA</a>	Schneider Electric	IGSS (Interactive Graphical SCADA System)	<a href="#">CVE-2023-27980</a> , <a href="#">CVE-2023-27982</a> , <a href="#">CVE-2023-27978</a> , <a href="#">CVE-2023-27981</a> , <a href="#">CVE-2023-27984</a> , <a href="#">CVE-2023-27977</a> , <a href="#">CVE-2023-27979</a> , <a href="#">CVE-2023-27983</a>
<a href="#">SAUTER EY-modulo 5 Building Automation Stations   CISA</a>	SAUTER	EY-modulo 5 Building Automation Stations	<a href="#">CVE-2023-28650</a> , <a href="#">CVE-2023-28655</a> , <a href="#">CVE-2023-22300</a> , <a href="#">CVE-2023-27927</a> , <a href="#">CVE-2023-28652</a>
<a href="#">CP Plus KVMS Pro   CISA</a>	CP Plus	KVMS Pro	<a href="#">CVE-2023-1518</a>
<a href="#">RoboDK   CISA</a>	RoboDK	RoboDK	<a href="#">CVE-2023-1516</a>
<a href="#">Hitachi Energy IEC 61850 MMS-Server   CISA</a>	Hitachi Energy	IEC 61850 MMS-Server	<a href="#">CVE-2022-3353</a>

Table 1: CISA advisories for March 2023

## First Version Publish Date

April 3, 2023 12:40:03 PM

### Threat Intelligence Tags

#### Affected Industries

- Aerospace & Defense
- Automotive
- Chemicals & Materials
- Construction & Engineering
- Energy & Utilities
- Healthcare
- High Tech/Software/Hardware/Services
- Manufacturing

- Oil & Gas
- Pharmaceuticals
- Technology
- Telecommunications
- Transportation

### Affected Systems

- Third Party Services
- Users/Application and Software
- Equipment Under Control
- Industrial Internet of Things
- Industrial Network Protocols
- Operations Management

### Intended Effects

- Degradation
- Disruption
- Interference with ICS

### Tactics, Techniques And Procedures (TTPs)

- Exploit Development
- Malware Research and Development

## Version Information

Version:1, April 3, 2023 12:40:03 PM

## Common Vulnerabilities and Exposures

CVE ID: CVE-2023-1143([CVE Description](#))Mandiant Vulnerability Analysis  
CVE-2022-23395([CVE Description](#))Mandiant Vulnerability Analysis  
CVE-2023-0345([CVE Description](#))Mandiant Vulnerability Analysis  
CVE-2022-45121([CVE Description](#))Mandiant Vulnerability Analysis  
CVE-2023-0343([CVE Description](#))Mandiant Vulnerability Analysis  
CVE-2023-0351([CVE Description](#))Mandiant Vulnerability Analysis  
CVE-2023-1516([CVE Description](#))Mandiant Vulnerability Analysis  
CVE-2023-27855([CVE Description](#))Mandiant Vulnerability Analysis  
CVE-2023-0457([CVE Description](#))Mandiant Vulnerability Analysis  
CVE-2022-1734([CVE Description](#))Mandiant Vulnerability Analysis  
CVE-2023-28650([CVE Description](#))Mandiant Vulnerability Analysis  
CVE-2023-27982([CVE Description](#))Mandiant Vulnerability Analysis  
CVE-2022-2639([CVE Description](#))Mandiant Vulnerability Analysis  
CVE-2022-46286([CVE Description](#))Mandiant Vulnerability Analysis  
CVE-2022-1607([CVE Description](#))Mandiant Vulnerability Analysis  
CVE-2022-32953([CVE Description](#))Mandiant Vulnerability Analysis  
CVE-2023-28395([CVE Description](#))Mandiant Vulnerability Analysis  
CVE-2021-42382([CVE Description](#))Mandiant Vulnerability Analysis  
CVE-2023-1134([CVE Description](#))Mandiant Vulnerability Analysis  
CVE-2022-4450([CVE Description](#))Mandiant Vulnerability Analysis  
CVE-2023-25931([CVE Description](#))Mandiant Vulnerability Analysis  
CVE-2022-23038([CVE Description](#))Mandiant Vulnerability Analysis  
CVE-2022-41304([CVE Description](#))Mandiant Vulnerability Analysis  
CVE-2023-0215([CVE Description](#))Mandiant Vulnerability Analysis





CVE-2023-28654([CVE Description](#))Mandiant Vulnerability Analysis  
CVE-2023-0348([CVE Description](#))Mandiant Vulnerability Analysis  
CVE-2022-3864([CVE Description](#))Mandiant Vulnerability Analysis  
CVE-2023-1518([CVE Description](#))Mandiant Vulnerability Analysis  
CVE-2021-42379([CVE Description](#))Mandiant Vulnerability Analysis  
CVE-2023-27981([CVE Description](#))Mandiant Vulnerability Analysis  
CVE-2022-40633([CVE Description](#))Mandiant Vulnerability Analysis  
CVE-2021-26401([CVE Description](#))Mandiant Vulnerability Analysis  
CVE-2018-12886([CVE Description](#))Mandiant Vulnerability Analysis  
CVE-2022-32206([CVE Description](#))Mandiant Vulnerability Analysis  
CVE-2023-28655([CVE Description](#))Mandiant Vulnerability Analysis  
CVE-2023-1141([CVE Description](#))Mandiant Vulnerability Analysis  
CVE-2022-41302([CVE Description](#))Mandiant Vulnerability Analysis

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