



Parasoft Support for CWE Top 25 + On the Cusp 2022 in C/C++test 2022.2

The following table shows how 2022 CWE Top 25 Most Dangerous Software Errors and Weaknesses On the Cusp (CWE Top 25 + On the Cusp 2022) maps to Parasoft's static analysis rules for C/C++.

| ID | Kind | Name/description | Parasoft rule ID(s) |
|---------|--------|--------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|
| CWE-787 | Top 25 | Out-of-bounds Write | CWE-787-a, CWE-787-b, CWE-787-c, CWE-787-d, CWE-787-e, CWE-787-f, CWE-787-g |
| CWE-79 | Top 25 | Improper Neutralization of Input During Web Page Generation ('Cross-site Scripting') | N/A |
| CWE-89 | Top 25 | Improper Neutralization of Special Elements used in an SQL Command ('SQL Injection') | CWE-89-a |
| CWE-20 | Top 25 | Improper Input Validation | CWE-20-a, CWE-20-b, CWE-20-c, CWE-20-d, CWE-20-e, CWE-20-f, CWE-20-g, CWE-20-h, CWE-20-i, CWE-20-j |
| CWE-125 | Top 25 | Out-of-bounds Read | CWE-125-a, CWE-125-b, CWE-125-c, CWE-125-d |
| CWE-78 | Top 25 | Improper Neutralization of Special Elements used in an OS Command ('OS Command Injection') | CWE-78-a |
| CWE-416 | Top 25 | Use After Free | CWE-416-a, CWE-416-b, CWE-416-c |
| CWE-22 | Top 25 | Improper Limitation of a Pathname to a Restricted Directory ('Path Traversal') | CWE-22-a |
| CWE-352 | Top 25 | Cross-Site Request Forgery (CSRF) | N/A |
| CWE-434 | Top 25 | Unrestricted Upload of File with Dangerous Type | N/A |
| CWE-476 | Top 25 | NULL Pointer Dereference | CWE-476-a, CWE-476-b |
| CWE-502 | Top 25 | Deserialization of Untrusted Data | N/A |
| CWE-190 | Top 25 | Integer Overflow or Wraparound | CWE-190-a, CWE-190-b, CWE-190-c, CWE-190-d, CWE-190-e, CWE-190-f, CWE-190-g |
| CWE-287 | Top 25 | Improper Authentication | CWE-287-a |
| CWE-798 | Top 25 | Use of Hard-coded Credentials | CWE-798-a |
| CWE-862 | Top 25 | Missing Authorization | N/A |
| CWE-77 | Top 25 | Improper Neutralization of Special Elements used in a Command ('Command Injection') | CWE-77-a |
| CWE-306 | Top 25 | Missing Authentication for Critical Function | N/A |

| | | | |
|----------|-------------|---------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|
| CWE-119 | Top 25 | Improper Restriction of Operations within the Bounds of a Memory Buffer | CWE-119-a, CWE-119-b, CWE-119-c, CWE-119-d, CWE-119-e, CWE-119-f, CWE-119-g, CWE-119-h, CWE-119-i, CWE-119-j, CWE-119-k |
| CWE-276 | Top 25 | Incorrect Default Permissions | N/A |
| CWE-918 | Top 25 | Server-Side Request Forgery (SSRF) | N/A |
| CWE-362 | Top 25 | Concurrent Execution using Shared Resource with Improper Synchronization ('Race Condition') | CWE-362-a, CWE-362-b, CWE-362-c, CWE-362-d, CWE-362-e |
| CWE-400 | Top 25 | Uncontrolled Resource Consumption | CWE-400-a |
| CWE-611 | Top 25 | Improper Restriction of XML External Entity Reference | CWE-611-a |
| CWE-94 | Top 25 | Improper Control of Generation of Code ('Code Injection') | N/A |
| CWE-295 | On the Cusp | Improper Certificate Validation | N/A |
| CWE-427 | On the Cusp | Uncontrolled Search Path Element | CWE-427-a |
| CWE-863 | On the Cusp | Incorrect Authorization | CWE-863-a |
| CWE-269 | On the Cusp | Improper Privilege Management | CWE-269-a, CWE-269-b |
| CWE-732 | On the Cusp | Incorrect Permission Assignment for Critical Resource | CWE-732-a, CWE-732-b |
| CWE-843 | On the Cusp | Access of Resource Using Incompatible Type ('Type Confusion') | CWE-843-a |
| CWE-668 | On the Cusp | Exposure of Resource to Wrong Sphere | CWE-668-a |
| CWE-200 | On the Cusp | Exposure of Sensitive Information to an Unauthorized Actor | CWE-200-a |
| CWE-1321 | On the Cusp | Improperly Controlled Modification of Object Prototype Attributes ('Prototype Pollution') | N/A |
| CWE-601 | On the Cusp | URL Redirection to Untrusted Site ('Open Redirect') | N/A |
| CWE-401 | On the Cusp | Missing Release of Memory after Effective Lifetime | CWE-401-a |
| CWE-59 | On the Cusp | Improper Link Resolution Before File Access ('Link Following') | CWE-59-a |
| CWE-522 | On the Cusp | Insufficiently Protected Credentials | N/A |
| CWE-319 | On the Cusp | Cleartext Transmission of Sensitive Information | N/A |
| CWE-312 | On the Cusp | Cleartext Storage of Sensitive Information | CWE-312-a |