

CWE WEAKNESS IDS

MAPPED TO CODESONAR® 7.3 C/C++ WARNING CLASSES

INTRODUCTION

The Common Weakness Enumeration (CWE™) is a list of software weakness types. Creating the list is a community initiative aimed at creating specific and succinct definitions for each common weakness type.

Every CodeSonar 7.3 warning report includes the numbers of any CWE weakness IDs that are closely mapped to the warning's class. (The close mapping for a warning class is the set of categories—including CWE weakness IDs—that most closely match the class, if any).

You can configure CodeSonar to enable and disable warning classes mapped to specific CWE weakness IDs, or use build presets to enable all warning classes that are closely mapped to any CWE weakness IDs. In addition, you can use the CodeSonar search function to find warnings related to specific CWE weakness IDs.

CodeSonar 7.3 is using CWE v4.10 (released January 31, 2023).

For more information on Common Weakness Enumeration:

<https://cwe.mitre.org/data/index.html>

The remainder of this document comprises two tables:

- A table showing the close mapping between CodeSonar C and C++ warning classes and CWE weakness IDs.
- A table showing the broad mapping between CodeSonar C and C++ warning classes and CWE weakness IDs. The broad CWE mapping for a CodeSonar warning class combines CWE weakness IDs from four sources:
 1. The close CWE mapping for the class.
 2. Other CWE weakness IDs that are related to the class in a meaningful way, but not eligible for the close mapping.
 3. For all CWE weakness IDs from sources 1 and 2, all *ancestors* in the CWE hierarchy.
 4. For all CWE weakness IDs from sources 1 and 2, all *descendants* in the CWE hierarchy.

A separate document, [CWE Weakness IDs Mapped to CodeSonar® Java Warning Classes](#), lists the CodeSonar Java warning classes that are closely and broadly mapped to CWE weakness IDs.

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CWE CLOSE MAPPING: C/C++ (CODESONAR V7.3)

The following table lists the CodeSonar C/C++ warning classes that are closely mapped to CWEweakness IDs.

| Category ID | Category Name | CodeSonar Class Name |
|-------------|---|---|
| CWE:14 | Compiler Removal of Code to Clear Buffers | Use of memset |
| CWE:15 | External Control of System or Configuration Setting | Tainted Configuration Setting |
| CWE:20 | Improper Input Validation | Coercion Alters Value Cast Alters Value Tainted Buffer Access |
| CWE:22 | Improper Limitation of a Pathname to a Restricted Directory ('Path Traversal') | Tainted Filename |
| CWE:73 | External Control of File Name or Path | Tainted Filename |
| CWE:78 | Improper Neutralization of Special Elements used in an OS Command ('OSCommand Injection') | Command Injection Untrusted Process Creation |
| CWE:88 | Improper Neutralization of Argument Delimiters in a Command ('ArgumentInjection') | Command Injection |
| CWE:89 | Improper Neutralization of Special Elements used in an SQL Command ('SQLInjection') | SQL Injection |
| CWE:90 | Improper Neutralization of Special Elements used in an LDAP Query ('LDAPInjection') | LDAP Injection |
| CWE:99 | Improper Control of Resource Identifiers ('Resource Injection') | Tainted Network Address Tainted Filename Untrusted Network Host Untrusted Network Port |
| CWE:114 | Process Control | Command Injection Library Injection Untrusted Library Load |
| CWE:119 | Improper Restriction of Operations within the Bounds of a Memory Buffer | Tainted Buffer Access Type Overrun Type Underrun High Risk Loop |



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| CWE:120 | Buffer Copy without Checking Size of Input ('Classic Buffer Overflow') | <ul style="list-style-type: none"> Use of getopt Use of getpass Use of gets Use of getwd Use of OemToAnsi Use of OemToChar Use of recvmsg Use of strcat Use of StrCatChainW Use of strchr Use of strcmp Use of strcoll Use of strcpy Use of strcpyn Use of strlen Use of strpbrk Use of strrchr Use of strspn Use of strstr Use of strtok Use of strstrns Use of syslog Buffer Overrun |
| CWE:128 | Wrap-around Error | <ul style="list-style-type: none"> Addition Overflow of Allocation Size Integer Overflow of Allocation Size Multiplication Overflow of Allocation Size Subtraction Underflow of Allocation Size Addition Overflow of Size Multiplication Overflow of Size Subtraction Underflow of Size |
| CWE:131 | Incorrect Calculation of Buffer Size | <ul style="list-style-type: none"> Addition Overflow of Allocation Size Integer Overflow of Allocation Size Multiplication Overflow of Allocation Size Subtraction Underflow of Allocation Size Truncation of Allocation Size Tainted Allocation Size |
| CWE:134 | Use of Externally-Controlled Format String | <ul style="list-style-type: none"> Use of FormatMessage Format String Injection Format String |
| CWE:170 | Improper Null Termination | <ul style="list-style-type: none"> No Space For Null Terminator Unterminated C String |
| CWE:190 | Integer Overflow or Wraparound | <ul style="list-style-type: none"> Addition Overflow of Allocation Size Integer Overflow of Allocation Size Multiplication Overflow of Allocation Size Subtraction Underflow of Allocation Size Addition Overflow of Size Multiplication Overflow of Size Subtraction Underflow of Size |
| CWE:191 | Integer Underflow (Wrap or Wraparound) | <ul style="list-style-type: none"> Subtraction Underflow of Allocation Size Subtraction Underflow of Size |



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| CWE:192 | Integer Coercion Error | Truncation of Allocation Size Coercion Alters Value Cast Alters Value Truncation of Size |
| CWE:197 | Numeric Truncation Error | Truncation of Allocation Size Truncation of Size |
| CWE:200 | Exposure of Sensitive Information to an Unauthorized Actor | Tainted Write |
| CWE:242 | Use of Inherently Dangerous Function | Use of gets Use of getwd Use of chroot Use of crypt Use of drem Use of gamma Use of longjmp Use of setjmp Use of mktemp Use of tmpfile Use of tmpnam Use of vfork |
| CWE:243 | Creation of chroot Jail Without Changing Working Directory | Use of chroot |
| CWE:243 | Creation of chroot Jail Without Changing Working Directory | chroot without chdir |
| CWE:252 | Unchecked Return Value | Ignored Return Value |
| CWE:256 | Plaintext Storage of a Password | Plaintext Storage of Password |
| CWE:259 | Use of Hard-coded Password | Hardcoded Authentication |
| CWE:269 | Improper Privilege Management | Use of AddAccessAllowedAce Use of AddAccessDeniedAce |
| CWE:281 | Improper Preservation of Permissions | Use of AddAccessAllowedAce Use of AddAccessDeniedAce |
| CWE:284 | Improper Access Control | Null Security Descriptor |
| CWE:311 | Missing Encryption of Sensitive Data | Plaintext Storage of Password Plaintext Transmission of Password |
| CWE:313 | Cleartext Storage in a File or on Disk | Plaintext Storage of Password |
| CWE:316 | Cleartext Storage of Sensitive Information in Memory | Plaintext Storage of Password |
| CWE:318 | Cleartext Storage of Sensitive Information in Executable | Hardcoded Authentication Hardcoded Crypto Key Hardcoded Crypto Salt Plaintext Storage of Password |
| CWE:319 | Cleartext Transmission of Sensitive Information | Plaintext Transmission of Password |
| CWE:321 | Use of Hard-coded Cryptographic Key | Hardcoded Crypto Key |
| CWE:325 | Missing Cryptographic Step | Encryption without Padding |
| CWE:326 | Inadequate Encryption Strength | Use of crypt Weak Cryptography |
| CWE:327 | Use of a Broken or Risky Cryptographic Algorithm | Use of crypt Use of rand Use of rand48 Function Use of random Weak Cryptography Use of Weak Cryptographic Algorithm |



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| CWE:328 | Reversible One-Way Hash | Use of crypt Weak Cryptography |
| CWE:330 | Use of Insufficiently Random Values | Use of crypt Weak Cryptography |
| CWE:331 | Insufficient Entropy | Encryption without Padding |
| CWE:332 | Insufficient Entropy in PRNG | Use of rand Use of rand48 Function Use of random |
| CWE:334 | Small Space of Random Values | Use of rand Use of rand48 Function Use of random |
| CWE:336 | Same Seed in Pseudo-Random Number Generator (PRNG) | Hardcoded Seed in PRNG |
| CWE:337 | Predictable Seed in Pseudo-Random Number Generator (PRNG) | Predictable Seed in PRNG |
| CWE:338 | Use of Cryptographically Weak Pseudo-Random Number Generator (PRNG) | Use of crypt Use of rand Use of rand48 Function Use of random Weak Cryptography |
| CWE:362 | Concurrent Execution using Shared Resource with Improper Synchronization('Race Condition') | Data Race |
| CWE:364 | Signal Handler Race Condition | Data Race |
| CWE:366 | Race Condition within a Thread | Data Race |
| CWE:367 | Time-of-check Time-of-use (TOCTOU) Race Condition | File System Race Condition |
| CWE:369 | Divide By Zero | Division By Zero Float Division By Zero |
| CWE:377 | Insecure Temporary File | Use of GetTempFileName Use of mkstemp Use of mktemp Use of tmpfile Use of tmpnam |
| CWE:390 | Detection of Error Condition Without Action | Empty if Statement |
| CWE:391 | Unchecked Error Condition | Ignored Return Value |
| CWE:394 | Unexpected Status Code or Return Value | Ignored Return Value |
| CWE:396 | Declaration of Catch for Generic Exception | Use of catch |
| CWE:397 | Declaration of Throws for Generic Exception | Use of throw |
| CWE:398 | 7PK - Code Quality | Unused Value |
| CWE:400 | Uncontrolled Resource Consumption | Excessive Stack Depth Potential Unbounded Loop |
| CWE:401 | Missing Release of Memory after Effective Lifetime | Leak |
| CWE:410 | Insufficient Resource Pool | Excessive Stack Depth |
| CWE:413 | Improper Resource Locking | Data Race Missing Lock Acquisition Conflicting Lock Order Nested Locks Try-lock that will never succeed Unknown Lock |
| CWE:415 | Double Free | Double Free |
| CWE:416 | Use After Free | Use After Free |



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| CWE:427 | Uncontrolled Search Path Element | Tainted Environment Variable |
| CWE:457 | Use of Uninitialized Variable | Uninitialized Variable |
| CWE:459 | Incomplete Cleanup | Leak |
| CWE:465 | Pointer Issues | High Risk Loop |
| CWE:474 | Use of Function with Inconsistent Implementations | Use of gamma |
| CWE:475 | Undefined Behavior for Input to API | Overlapping Memory Regions |
| CWE:476 | NULL Pointer Dereference | Null Pointer Dereference Unchecked Parameter Dereference |
| CWE:477 | Use of Obsolete Function | Use of cuserid Use of drem Use of gamma Use of LoadModule Use of MoveFile Use of WinExec |
| CWE:478 | Missing Default Case in Switch Statement | Missing default Assignment in Conditional Assignment Result in Expression |
| CWE:484 | Comparing instead of Assigning | Redundant Condition |
| CWE:484 | Omitted Break Statement in Switch | Missing break |
| CWE:489 | Active Debug Code | Leftover Debug Code |
| CWE:506 | Embedded Malicious Code | Hardcoded DNS Name Untrusted Network Host |
| CWE:511 | Logic/Time Bomb | Potential Timebomb |
| CWE:540 | Inclusion of Sensitive Information in Source Code | Hardcoded Authentication Hardcoded Crypto Key |
| CWE:546 | Suspicious Comment | Comment Suggests Code Unfinished |
| CWE:547 | Use of Hard-coded, Security-relevant Constants | Hardcoded Authentication Hardcoded Crypto Key |
| CWE:558 | Use of getlogin() in Multithreaded Application | Use of getlogin |
| CWE:561 | Dead Code | Unexercised Call Unexercised Computation Unexercised Conditional Unexercised Control Flow Unexercised Data Flow Unreachable Call Unreachable Catch Unreachable Computation Unreachable Conditional Unreachable Control Flow Unreachable Data Flow Unused Label Unused Macro Unused Parameter Unused Tag Unused Type Function Call Has No Effect Over-initialized Element |
| CWE:562 | Return of Stack Variable Address | Return Pointer to Local |
| CWE:563 | Assignment to Variable without Use | Unused Value |
| CWE:567 | Unsynchronized Access to Shared Data in a Multithreaded Context | Data Race |



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| CWE:570 | Expression is Always False | Redundant Condition |
| CWE:571 | Expression is Always True | Redundant Condition |
| CWE:573 | Improper Following of Specification by Caller | Use After Free Division By Zero Null Pointer Dereference |
| CWE:587 | Assignment of a Fixed Address to a Pointer | Coercion: Integer Constant to Pointer |
| CWE:589 | Call to Non-ubiquitous API | Use of drem |
| CWE:590 | Free of Memory not on the Heap | Free Null Pointer Type Mismatch |
| CWE:605 | Multiple Binds to the Same Port | Use of SO_REUSEADDR |
| CWE:610 | Externally Controlled Reference to a Resource in Another Sphere | Tainted Network Address Tainted Filename Untrusted Network Host Untrusted Network Port |
| CWE:615 | Inclusion of Sensitive Information in Source Code Comments | Commented-out Code |
| CWE:628 | Function Call with Incorrectly Specified Arguments | Floating Point Domain Error Arctangent Domain Error Raises FE_INVALID Logarithm on Negative Value Undefined Power of Zero sqrt on Negative Value Argument Too High Argument Too Low Floating Point Range Error cosh on High Number cosh on Low Number Gamma on Zero Logarithm on Zero Format String Type Error |
| CWE:641 | Improper Restriction of Names for Files and Other Resources | Tainted Network Address Tainted Filename |
| CWE:657 | Violation of Secure Design Principles | Library Function Override |
| CWE:662 | Improper Synchronization | Lock/Unlock Mismatch Blocking in Critical Section |
| CWE:664 | Improper Control of a Resource Through its Lifetime | Misaligned Object |
| CWE:665 | Improper Initialization | Uninitialized Variable Inconsistent Enumerator Initialization Initialization Cycle Missing Braces in Initialization Over-initialized Element Partially Uninitialized Aggregate Partially Uninitialized Array Unordered Initialization Unspecified Array Size with Designator Initialization Virtual Call in Constructor Thread is not Joinable |
| CWE:666 | Operation on Resource in Wrong Phase of Lifetime | Socket In Wrong State Use After Close |
| CWE:667 | Improper Locking | Missing Lock Release |



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| CWE:672 | Operation on a Resource after Expiration or Release | Use After Free Double Close Use After Close |
| CWE:674 | Uncontrolled Recursion | Recursion |
| CWE:675 | Multiple Operations on Resource in Single-Operation Context | Double Initialization |
| CWE:676 | Use of Potentially Dangerous Function | <p>Use of abort</p> <p>Use of AddAccessAllowe-dAce</p> <p>Use of AddAccessDeniedAce</p> <p>Use of AfxParseURL</p> <p>Use of atof</p> <p>Use of atoi</p> <p>Use of atol</p> <p>Use of atoll</p> <p>Use of getopt</p> <p>Use of getpass</p> <p>Use of OemToAnsi</p> <p>Use of OemToChar</p> <p>Use of realpath</p> <p>Use of recvmsg</p> <p>Use of strcat</p> <p>Use of StrCatChainW</p> <p>Use of strchr</p> <p>Use of strcmp</p> <p>Use of strcoll</p> <p>Use of strcpy</p> <p>Use of strcspn</p> <p>Use of strlen</p> <p>Use of strpbrk</p> <p>Use of strrchr</p> <p>Use of strspn</p> <p>Use of strstr</p> <p>Use of strtok</p> <p>Use of strtrns</p> <p>Use of syslog</p> <p>Use of bsearch</p> <p>Use of catopen</p> <p>Use of chroot</p> <p>Use of CreateFile</p> <p>Use of CreateProcess</p> <p>Use of CreateThread</p> <p>Use of crypt</p> <p>Use of cuserid</p> <p>Use of exit</p> <p>Use of <fenv.h> Exception Handling Function</p> <p>Use of FormatMessage</p> <p>Use of getenv</p> <p>Use of getlogin</p> <p>Use of LoadModule</p> <p>Use of longjmp</p> <p>Use of memset</p> <p>Use of MoveFile</p> <p>Use of _exec</p> <p>Use of _spawn</p> <p>Use of AfxLoadLibrary</p> <p>Use of CoLoadLibrary</p> <p>Use of execlp</p> <p>Use of execvp</p> <p>Use of LoadLibrary</p> <p>Use of popen</p> <p>Use of SHCreateProcessAsUs-erW</p> <p>Use of ShellExecute</p> <p>Use of system</p> <p>Use of qsort</p> <p>Use of rand</p> <p>Use of rand48 Function</p> <p>Use of random</p> <p>Use of setjmp</p> <p>Use of setuid</p> <p>Use of signal</p> <p>Use of <stdio.h> Input/Output</p> <p>Use of _t_open</p> <p>Use of GetTempFileName</p> <p>Use of mkstemp</p> <p>Use of mktemp</p> <p>Use of tmpfile</p> <p>Use of tmpnam</p> <p>Use of <time.h> Time/DateFunction</p> <p>Use of ttyname</p> <p>Use of vfork</p> <p>Use of <wchar.h> Input/OutputWeak Cryptography</p> <p>Use of WinExec</p> <p>Use of <stdio.h> Input/OutputMacro</p> <p>Use of <wchar.h> Input/OutputMacro</p> <p>Use of <signal.h></p> <p>Use of <tgmath.h> chroot without chdir</p> <p>Use of Condition Variable Signal</p> <p>Use of pthread_kill</p> <p>Use of putenv</p> <p>Use of realloc</p> |



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| CWE:680 | Integer Overflow to Buffer Overflow | Addition Overflow of Allocation Size Integer Overflow of Allocation Size Multiplication Overflow of Allocation Size Subtraction Underflow of Allocation Size Truncation of Allocation Size Addition Overflow of Size Multiplication Overflow of Size Subtraction Underflow of Size Truncation of Size |
| CWE:681 | Incorrect Conversion between Numeric Types | Negative Character Value |
| CWE:686 | Function Call With Incorrect Argument Type | GlobalHandle on GMEM_FIXED Memory GlobalLock on GMEM_FIXED Memory GlobalUnlock on GMEM_FIXED Memory LocalHandle on LMEM_FIXED Memory LocalLock on LMEM_FIXED Memory LocalUnlock on LMEM_FIXED Memory Type Mismatch Array Parameter Mismatch Implicit Function Declaration Negative Character Value |
| CWE:687 | Function Call With Incorrectly Specified Argument Value | Array Parameter Mismatch Floating Point Domain Error Arctangent Domain Error Raises FE_INVALID Logarithm on Negative Value Undefined Power of Zero sqrt on Negative Value Argument Too High Argument Too Low Floating Point Range Error cosh on High Number cosh on Low Number Gamma on Zero Logarithm on Zero Format String Type Error Unreasonable Size Argument Function Call Has No Effect MAX_PATH Exceeded Negative file descriptor |



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| CWE:688 | Function Call With Incorrect Variable or Reference as Argument | <ul style="list-style-type: none"> Array Parameter Mismatch Floating Point Domain Error Arctangent Domain Error Raises FE_INVALID Logarithm on Negative Value Undefined Power of Zero sqrt on Negative Value Argument Too High Argument Too Low Floating Point Range Error cosh on High Number cosh on Low Number Gamma on Zero Logarithm on Zero Format String Type Error Unreasonable Size Argument Function Call Has No Effect |
| CWE:690 | Unchecked Return Value to NULL Pointer Dereference | <ul style="list-style-type: none"> Null Pointer Dereference Null Test After Dereference |
| CWE:691 | Insufficient Control Flow Management | <ul style="list-style-type: none"> Use of longjmp Use of setjmp |
| CWE:696 | Incorrect Behavior Order | <ul style="list-style-type: none"> Use After Free Conflicting Lock Order Socket In Wrong State Use After Close Null Test After Dereference Thread is not Joinable |
| CWE:703 | Improper Check or Handling of Exceptional Conditions | <ul style="list-style-type: none"> Unreachable Catch |
| CWE:704 | Incorrect Type Conversion or Cast | <ul style="list-style-type: none"> Coercion Alters Value Dangerous Function Cast Cast: Non-integer Arithmetic Type/Object Pointer Cast: Arithmetic Type/Void Pointer Cast Removes const Qualifier Cast Removes volatile Qualifier Conversion to Function Pointer Float Pointer Conversion Conversion from Function Pointer Conversion: Pointer to Incomplete Conversion: Pointer/Integer Cast: Object Pointers Conversion: Void Pointer to Object Pointer Risky Integer Promotion Cast Alters Value Varargs Function Cast Expression Value Widened by Assignment Inappropriate Cast Type Inappropriate Cast Type: Expression Expression Value Widened by Other Operand |



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| CWE:710 | Improper Adherence to Coding Standards | Dynamic Allocation After Initialization Use of longjmp Use of setjmp Use of <stdlib.h> Allocator/Deallocator Use of <stdlib.h> Allocator/Deallocator Macro Not All Warnings Are Enabled Warnings Not Treated As Errors Task Delay Function Lock/Unlock Mismatch Float Pointer Conversion Not Enough Assertions Recursion Too Many Parameters Function Too Long Non-distinct Identifiers: External Names Non-distinct Identifiers: Macro/Macro Non-distinct Identifiers: Macro/Other Non-distinct Identifiers: Nested Scope Non-distinct Identifiers: Same Scope Non-unique Identifiers: External Name Non-unique Identifiers: Internal Name Library Function Override Macro Name is C Keyword Non-unique Identifiers: Tag Non-unique Identifiers: TypedefMacro Uses -> Operator Macro Uses [] Operator Code Before #include Conditional Compilation Macro Defined in Function Body Macro Uses # Operator Macro Does Not End With } or) Macro Does Not Start With { or (No Matching #endif No Matching #if Macro Uses ## Operator ## Follows # Operator Recursive Macro Macro Uses Unary * Operator Unbalanced Parenthesis Use of #undef Macro Undefined in Function Body Variadic Macro Nested Function Declaration Multiple Declarations of a Global Global Variable Declared with Different Types Multiple Declarations On Line Function Pointer Function Pointer Conversion Goto Statement Inconsistent Enumerator Initialization Multiple Statements On Line Pointer Type Inside Typedef Condition Contains Side Effects Too Many Dereferences Too Much Indirection in Declaration Basic Numerical Type Used Variable Could Be const Confusing Literal Suffix Missing Parentheses |
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| CWE:758 | Reliance on Undefined, Unspecified, or Implementation-Defined Behavior | Use of abort Use of atof Use of atoi Use of atol Use of atoll Use of bsearch Use of exit Use of getenv Use of <stdio.h> Input/Output Use of <time.h> Time/Date Function Use of <wchar.h> Input/Output Use of <stdio.h> Input/Output Macro Use of <wchar.h> Input/Output Macro Shift Amount Exceeds Bit Width Negative Shift Amount Missing Return Value Uninitialized Variable Use of <signal.h> Use of <tmath.h> Missing Return Statement Use of putenv Indeterminate Order of Evaluation |
| CWE:760 | Use of a One-Way Hash with a Predictable Salt | Hardcoded Crypto Salt |
| CWE:761 | Free of Pointer not at Start of Buffer | Misaligned Object Type Mismatch |
| CWE:762 | Mismatched Memory Management Routines | Type Mismatch Pool Mismatch |
| CWE:763 | Release of Invalid Pointer or Reference | Double Free Misaligned Object |
| CWE:764 | Multiple Locks of a Critical Resource | Double Lock Locked Twice |
| CWE:765 | Multiple Unlocks of a Critical Resource | Double Unlock |
| CWE:771 | Missing Reference to Active Allocated Resource | Leak |
| CWE:772 | Missing Release of Resource after Effective Lifetime | Leak |
| CWE:773 | Missing Reference to Active File Descriptor or Handle | Leak |
| CWE:775 | Missing Release of File Descriptor or Handle after Effective Lifetime | Leak |
| CWE:780 | Use of RSA Algorithm without OAEP | Encryption without Padding |
| CWE:783 | Operator Precedence Logic Error | Confusing Operator Overload |
| CWE:785 | Use of Path Manipulation Function without Maximum-sized Buffer | Use of realpath |
| CWE:786 | Access of Memory Location Before Start of Buffer | Buffer Underrun |
| CWE:788 | Access of Memory Location After End of Buffer | Buffer Overrun |
| CWE:789 | Memory Allocation with Excessive Size Value | Tainted Allocation Size |
| CWE:798 | Use of Hard-coded Credentials | Hardcoded Authentication Hardcoded Crypto Key Hardcoded Crypto Salt |
| CWE:822 | Untrusted Pointer Dereference | Unchecked Parameter Dereference |
| CWE:823 | Use of Out-of-range Pointer Offset | Pointer Arithmetic |



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| | | Misaligned Object Pointer Arithmetic Pointer Before Beginning of Object Pointer Past End of Object |
| CWE:832 | Unlock of a Resource that is not Locked | Double Unlock Missing Lock Acquisition |
| CWE:833 | Deadlock | Deadlock |
| CWE:835 | Loop with Unreachable Exit Condition ('Infinite Loop') | Potential Unbounded Loop |
| CWE:843 | Access of Resource Using Incompatible Type ('Type Confusion') | GlobalHandle on GMEM_FIXED Memory GlobalLock on GMEM_FIXED Memory GlobalUnlock on GMEM_FIXED Memory LocalHandle on LMEM_FIXED Memory LocalLock on LMEM_FIXED Memory LocalUnlock on LMEM_FIXED Memory Type Mismatch |
| CWE:863 | Incorrect Authorization | Use of cuserid Use of getlogin |
| CWE:908 | Use of Uninitialized Resource | Uninitialized Variable |
| CWE:910 | Use of Expired File Descriptor | Use After Close |
| CWE:1007 | Insufficient Visual Distinction of Homoglyphs Presented to User | Typographically Ambiguous Identifiers |
| CWE:1025 | Comparison Using Wrong Factors | Read Past Null Terminator |
| CWE:1037 | Processor Optimization Removal or Modification of Security-critical Code | Use of memset |
| CWE:1041 | Use of Redundant Code | Copy-Paste Error |
| CWE:1056 | Invokable Control Element with Variadic Parameters | Ellipsis |
| CWE:1064 | Invokable Control Element with Signature Containing an Excessive Number of Parameters | Too Many Parameters |
| CWE:1077 | Floating Point Comparison with Incorrect Operator | Floating Point Equality |
| CWE:1079 | Parent Class without Virtual Destructor Method | delete with Non-Virtual Destructor |
| CWE:1080 | Source Code File with Excessive Number of Lines of Code | Function Too Long |
| CWE:1087 | Class with Virtual Method without a Virtual Destructor | delete with Non-Virtual Destructor |
| CWE:1091 | Use of Object without Invoking Destructor Method | Leak |
| CWE:1126 | Declaration of Variable with Unnecessarily Wide Scope | Scope Could Be File Static Scope Could Be Local Static |
| CWE:1127 | Compilation with Insufficient Warnings or Errors | Not All Warnings Are Enabled Warnings Not Treated As Errors |



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| CWE:1157 | SEI CERT C Coding Standard - Guidelines 03. Expressions (EXP) | Use of <stdarg.h> Feature Cast Removes const Qualifier Risky Integer Promotion Array Parameter Mismatch Ignored Return Value Null Pointer Dereference Uninitialized Variable Assignment in Conditional Empty Branch Statement Empty for Statement Empty if Statement Empty switch Statement Empty while Statement Missing Parentheses Pointer Arithmetic Condition Contains Side Effects Side Effects in sizeof Unchecked Parameter Dereference Assignment Result in Expression Inappropriate Operand Type Restrict Qualifier Used |
| CWE:1164 | Irrelevant Code | Unused Value |
| CWE:1295 | Debug Messages Revealing Unnecessary Information | Leftover Debug Code |
| CWE:1335 | Incorrect Bitwise Shift of Integer | Negative Shift Amount Shift Amount Exceeds Bit Width |
| CWE:1341 | Multiple Releases of Same Resource or Handle | Double Close |
| CWE:1389 | Incorrect Parsing of Numbers with Different Radices | Octal Constant |



CWE IDS BROADLY MAPPED TO ONE OR MORE CODESONAR C/C++ WARNING CLASSES(CODESONAR V7.3)

The following table lists the CWE IDs that are broadly mapped to one or more CodeSonar C/C++ warning classes.

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|---------|---------|---------|---------|---------|
| CWE:2 | CWE:14 | CWE:15 | CWE:19 | CWE:20 |
| CWE:22 | CWE:23 | CWE:24 | CWE:25 | CWE:26 |
| CWE:27 | CWE:28 | CWE:29 | CWE:30 | CWE:31 |
| CWE:32 | CWE:33 | CWE:34 | CWE:35 | CWE:36 |
| CWE:37 | CWE:38 | CWE:39 | CWE:40 | CWE:73 |
| CWE:74 | CWE:77 | CWE:78 | CWE:79 | CWE:88 |
| CWE:89 | CWE:90 | CWE:91 | CWE:93 | CWE:94 |
| CWE:95 | CWE:99 | CWE:113 | CWE:114 | CWE:116 |
| CWE:117 | CWE:118 | CWE:119 | CWE:120 | CWE:121 |
| CWE:122 | CWE:123 | CWE:124 | CWE:125 | CWE:126 |
| CWE:127 | CWE:128 | CWE:129 | CWE:130 | CWE:131 |
| CWE:133 | CWE:134 | CWE:135 | CWE:136 | CWE:137 |
| CWE:138 | CWE:147 | CWE:170 | CWE:188 | CWE:189 |
| CWE:190 | CWE:191 | CWE:192 | CWE:193 | CWE:194 |
| CWE:195 | CWE:196 | CWE:197 | CWE:199 | CWE:200 |
| CWE:201 | CWE:203 | CWE:209 | CWE:212 | CWE:221 |
| CWE:226 | CWE:227 | CWE:228 | CWE:229 | CWE:230 |
| CWE:231 | CWE:232 | CWE:237 | CWE:238 | CWE:239 |
| CWE:240 | CWE:241 | CWE:242 | CWE:243 | CWE:244 |
| CWE:248 | CWE:251 | CWE:252 | CWE:253 | CWE:254 |
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| CWE:269 | CWE:274 | CWE:275 | CWE:280 | CWE:281 |
| CWE:284 | CWE:285 | CWE:287 | CWE:290 | CWE:310 |
| CWE:311 | CWE:312 | CWE:313 | CWE:316 | CWE:318 |
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| CWE:389 | CWE:390 | CWE:391 | CWE:392 | CWE:394 |
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| CWE:400 | CWE:401 | CWE:404 | CWE:405 | CWE:410 |
| CWE:411 | CWE:412 | CWE:413 | CWE:414 | CWE:415 |
| CWE:416 | CWE:417 | CWE:426 | CWE:427 | CWE:429 |
| CWE:435 | CWE:436 | CWE:438 | CWE:440 | CWE:451 |
| CWE:452 | CWE:453 | CWE:454 | CWE:456 | CWE:457 |
| CWE:459 | CWE:465 | CWE:466 | CWE:467 | CWE:468 |
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| CWE:481 | CWE:482 | CWE:483 | CWE:484 | CWE:485 |
| CWE:489 | CWE:491 | CWE:497 | CWE:501 | CWE:506 |



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| CWE:507 | CWE:508 | CWE:510 | CWE:511 | CWE:514 |
| CWE:515 | CWE:522 | CWE:523 | CWE:529 | CWE:530 |
| CWE:532 | CWE:538 | CWE:540 | CWE:543 | CWE:546 |
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| CWE:561 | CWE:562 | CWE:563 | CWE:567 | CWE:569 |
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| CWE:585 | CWE:587 | CWE:588 | CWE:589 | CWE:590 |
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| CWE:615 | CWE:624 | CWE:626 | CWE:628 | CWE:629 |
| CWE:635 | CWE:641 | CWE:642 | CWE:643 | CWE:651 |
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| CWE:800 | CWE:801 | CWE:802 | CWE:803 | CWE:805 |
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| CWE:811 | CWE:812 | CWE:813 | CWE:815 | CWE:816 |
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| CWE:896 | CWE:897 | CWE:898 | CWE:899 | CWE:900 |
| CWE:901 | CWE:902 | CWE:903 | CWE:904 | CWE:905 |



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| CWE:906 | CWE:907 | CWE:908 | CWE:909 | CWE:910 |
| CWE:912 | CWE:913 | CWE:915 | CWE:916 | CWE:922 |
| CWE:928 | CWE:929 | CWE:930 | CWE:931 | CWE:932 |
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| CWE:1167 | CWE:1169 | CWE:1170 | CWE:1171 | CWE:1172 |
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| CWE:1181 | CWE:1182 | CWE:1186 | CWE:1188 | CWE:1194 |
| CWE:1200 | CWE:1202 | CWE:1204 | CWE:1205 | CWE:1207 |
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| CWE:1389 | CWE:1390 | CWE:1391 | | |

