

Coverity Coverage For Common Weakness Enumeration (CWE): C/C++

CWE ID	Coverity Static Analysis Checker	Checker Description
20	TAINTED_SCALAR	Use of untrusted scalar value
		Untrusted value as an argument
		Use of untrusted value
	TAINTED_STRING	Use of untrusted string value
	USER_POINTER	User pointer dereference
119	ARRAY_VS_SINGLETON	Out-of-bounds access
	BAD_ALLOC_ARITHMETIC	Stray pointer arithmetic
	COM.BSTR.CONV	COM bad conversion to BSTR
	INTEGER_OVERFLOW	Overflowed array index write
		Overflowed pointer write
	INVALIDATE_ITERATOR	Using invalid iterator
	MISMATCHED_ITERATOR	Iterator container mismatch
		Splice iterator mismatch
	OVERRUN_DYNAMIC	Allocation size error
		Out-of-bounds access
		Out-of-bounds write
OVERRUN_STATIC	Out-of-bounds access	
	Out-of-bounds write	
REVERSE_NEGATIVE	Argument cannot be negative	
120	BUFFER_SIZE	Copy into fixed size buffer
		Destination buffer too small
		Possible buffer overflow
	SIZECHECK	Allocation too small for type
	STRING_OVERFLOW	Buffer overflow
		Copy into fixed size buffer
		Destination buffer too small
STRING_SIZE	Unbounded source buffer	

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125	INTEGER_OVERFLOW	Overflowed array index read
		Overflowed pointer read
	OVERRUN_DYNAMIC	Out-of-bounds read
	OVERRUN_STATIC	Out-of-bounds read
129	NEGATIVE_RETURNS	Negative array index read
		Negative array index write
	REVERSE_NEGATIVE	Negative array index read
		Negative array index write
	TAINTED_SCALAR	Untrusted array index read
		Untrusted array index write
		Untrusted pointer read
		Untrusted pointer write
131	BAD_ALLOC_STRLEN	String length miscalculation
	SIZECHECK	Allocation size error
		Allocation size mismatch
		Allocation size with '&'
		Incorrect operator new syntax
134	PW.NON_CONST_PRINTF_FORMAT_STRING	Non-constant format string
	TAINTED_STRING	Format string vulnerability
	TAINTED_STRING_WARNING	Format string warning
170	BUFFER_SIZE_WARNING	Buffer not null terminated
	READLINK	Readlink used insecurely
	SIZECHECK	Allocation too small for string
	STRING_NULL	String not null terminated
	BUFFER_SIZE	Buffer not null terminated
190	INTEGER_OVERFLOW	Integer overflow
		Integer overflowed argument
		Overflowed constant
		Overflowed return value
	PW.INTEGER_OVERFLOW	Integer overflow warning
	PW.INTEGER_TOO_LARGE	Integer overflow warning
	PW.SHIFT_COUNT_TOO_LARGE	Integer overflow warning
	OVERFLOW_BEFORE_WIDEN	Unintentional integer overflow

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194	SIGN_EXTENSION	Unintended sign extension
195	MISRA_CAST	Misra violating cast
197		Implicit integer conversion
	NO_EFFECT	Memset fill truncated
234	VARARGS	Missing varargs init or cleanup
248	UNCAUGHT_EXCEPT	Uncaught exception
252	CHECKED_RETURN	Unchecked return value
		Unchecked return value as arg
366	MISSING_LOCK	Data race condition
367	TOCTOU	Time of check time of use
369	DIVIDE_BY_ZERO	Divide by zero
377	SECURE_TEMP	Insecure temporary file
394	CHAR_IO	Truncated stdio return value
	NEGATIVE_RETURNS	Improper use of negative value
	REVERSE_NEGATIVE	Improper use of negative value
398	MISMATCHED_ITERATOR	Invalid iterator comparison
	NO_EFFECT	Array compared against 0
		Expression with no effect
	PW.*	Parse warning
	STRAY_SEMICOLON	Stray semicolon
	VIRTUAL_DTOR	Empty virtual destructor
400	STACK_USE	Large stack use
401	COM.BSTR.ALLOC	COM BSTR memory leak
	CTOR_DTOR_LEAK	Resource leak in object
	NO_EFFECT	Incomplete delete
	SYMBIAN.CLEANUP_STACK	Symbian - cleanup stack leak
404	RESOURCE_LEAK	Resource leak

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415	SYMBIAN.CLEANUP_STACK	Symbian - double free
	USE_AFTER_FREE	Double free
416	COM.BAD_FREE	Explicit free of COM interface
	COM.BSTR.ALLOC	COM BSTR double free
		COM BSTR uninitialized var free
		COM BSTR uninitialized var use
		Freeing non-owned COM BSTR
	USE_AFTER_FREE	Read from pointer after free
		Use after free
		Write to pointer after free
	WRAPPER_ESCAPE	COM object use after free
		Freed COM internal read
		Freed COM internal write
		Freed internal location read
		Freed internal location write
		Wrapper object use after free
456	NO_EFFECT	Memset buffer size of 0
457	PW.BRANCH_PAST_INITIALIZATION	Branch past initialization
	UNINIT	Uninitialized array index read
		Uninitialized array index write
		Uninitialized pointer read
		Uninitialized pointer write
		Uninitialized scalar variable
		Uninitialized value use
	UNINIT_CTOR	Uninitialized member
		Uninitialized pointer field
		Uninitialized scalar field
459	DELETE_ARRAY	Array delete misuse
		Incorrect delete operator
		Non-array delete for objects
		Non-array delete for scalars
	DELETE_VOID	Deleting void pointer
	SYMBIAN.CLEANUP_STACK	Symbian - cleanup stack bug

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465	NO_EFFECT	Incorrect pointer increment
467	BAD_SIZEOF	Incorrect sizeof expression
		Sizeof pointer expression
	SIZEOF_MISMATCH	Sizeof not portable
	FORWARD_NULL	Dereference after null check
		Explicit null dereferenced
		Null pointer dereference
		Unchecked dynamic_cast
NULL_RETURNS	Dereference null return (stat)	
	Dereference null return value	
REVERSE_INULL	Dereference before null check	
480	CONSTANT_EXPRESSION_RESULT	Logical vs. bitwise operator
		Suspicious &= or =
		Wrong operator used
	NO_EFFECT	Misused comma operator
481	PW.ASSIGN_WHERE_COMPARE_MEANT	Assign instead of compare
482	NO_EFFECT	Switch test assignment
		Test should be assignment
484	MISSING_BREAK	Missing break in switch
557	LOCK	Double lock or missing unlock
		Missing unlock
		Missing/extra lock or unlock
	ORDER_REVERSAL	Thread deadlock
	SLEEP	Waiting while holding a lock
561	DEADCODE	Dead default in switch
		Logically dead code
	UNREACHABLE	Structurally dead code
562	PW.RETURN_PTR_TO_LOCAL_TEMP	Returning pointer to temp
	RETURN_LOCAL	Pointer to local outside scope
563	UNUSED_VALUE	Unused pointer value

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569	CONSTANT_EXPRESSION_RESULT	Bitwise-and with zero
		Constant expression result
		Extra high-order bits
	SIZEOF_MISMATCH	Operands don't affect result
		Extra sizeof expression
		Misused sizeof
		Wrong sizeof argument
570	NO_EFFECT	Enum compared against 0
		Macro compares unsigned to 0
	PW.UNSIGNED_COMPARE_WITH_NEGATIVE	Unsigned compared against 0
590	BAD_FREE	Unsigned compared with neg
		Free of address-of expression
		Free of address-of first field
		Free of array-typed value
		Free of function pointer
606	Free of invalid pointer value	
	NEGATIVE_RETURNS	Negative loop bound
617	TAINTED_SCALAR	Untrusted loop bound
	LOCK	Lock assertion failure
628	BAD_COMPARE	Function address comparison
	PW.BAD_PRINTF_FORMAT_STRING	Printf format string issue
633	COM.BSTR.ALLOC	COM BSTR error
662	ATOMICITY	Value not atomically updated
665	NO_EFFECT	Self assignment
		Memset fill value of '0'
667	SECURE_CODING	Calling risky function
681	MISRA_CAST	Implicit conversion
		Implicit floating conversion
		Implicit integer conversion
		Misra violating cast

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CWE ID	Coverity Static Analysis Checker	Checker Description
685	PW.TOO_FEW_PRINTF_ARGS	Printf arg count mismatch
	PW.TOO_MANY_PRINTF_ARGS	Printf arg count mismatch
686	PW.PRINTF_ARG_MISMATCH	Printf arg type mismatch
687	NEGATIVE_RETURNS	Argument cannot be negative
	OPEN_ARGS	Insecure file permissions
704	PW.BAD_CAST	Lossy integer to pointer
	PW.CONVERSION_TO_POINTER_LOSES_BITS	Lossy integer to pointer
764	LOCK	Double lock
772	VIRTUAL_DTOR	Non-virtual destructor
775	RESOURCE_LEAK	Integer handle or fd leak
783	CONSTANT_EXPRESSION_RESULT	Missing parentheses
	SIZEOF_MISMATCH	Missing parentheses
None	ASSERT_SIDE_EFFECT	Function in assertion
		Side effect in assertion
	BAD_OVERRIDE	Failed to override method
	ENUM_AS_BOOLEAN	Misuse of enum
	EVALUATION_ORDER	Evaluation order violation
	HFA	Unnecessary header file
	INFINITE_LOOP	Infinite loop
		Infinite loop with no exit
	MISSING_RETURN	Missing return statement
		Missing/multiple returns
		Multiple return statements
	MIXED_ENUMS	Inferred misuse of enum
		Mixing enum types
	PARSE_ERROR	Unrecoverable parse warning
	PASS_BY_VALUE	Big parameter passed by value
PW.INCLUDE_RECURSION	Recursion in included headers	
RW.*	Parse recovery warning	

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None	STREAM_FORMAT_STATE	Not restoring ostream format
		Stream format state error
		Unknown mask in self
	SW.*	Parse semantic warning
	SYMBIAN.CLEANUP_STACK	Symbian - several objects pushed
		Symbian - wrong object popped
	SYMBIAN.NAMING	Symbian - missing L suffix
		Symbian - missing LC suffix
		Symbian - naming convention

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