

# Updates in 2020.2

**Release date: November 9, 2020**

This release includes the following enhancements:

- [New Suppression Format](#)
- [Enhanced Static Analysis](#)
- [Enhanced Requirement and Test Correlations](#)
- [Extended Coverage Reporting to DTP](#)
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## New Suppression Format

You can now create suppressions for static analysis findings in *parasoft.suppress* files, which can be stored in source control along with your source files. You can create in-file suppressions in the C/C++test GUI or manually add information about findings you want to suppress to suppression files. See [Suppressing the Reporting of Acceptable Violations](#).

Storing suppressions in the XML-style format locally or on Team Server is deprecated, as well as the Suppressions view. You can migrate deprecated suppressions to the new format or enable the deprecated suppression format in the Suppressions view. See [Handling Deprecated Suppressions](#).

In addition, you can now configure C/C++test to automatically suppress static rule violations that are detected on lines that match a regular expression pattern. See [Defining Line Suppressions Based on Regex Patterns](#).

## Enhanced Static Analysis

We've extended C/C++test's static analysis capabilities with new features to help you focus on the most expedient tasks.

## New Scoping Options to Target Modified Code on the Current Branch

We've added new options to create file filters that restrict the scope of analysis to files modified on your current working branch. This allows you to focus on identifying and fixing bugs introduced by your recent code changes before the code is merged with the main development stream.

In addition, you can narrow down the scope to locally modified files so that you can analyze the code you updated before checking it into source control.

See [Defining File Filters Based on Source Control Data](#).

## New Report Reference Options for Defining the Code Analysis Baseline

You can now specify a path or URL to a reference report file that will be used as a baseline when performing analysis with C/C++test. This allows you to exclude previously reported findings from the current report in order to focus on the most recently detected code defects. See [Configuring a Reference Report](#).

## Enhanced Requirement and Test Correlations

We've significantly extended C/C++test's capabilities to indicate requirement and test correlations to help you identify requirements specified in a requirements management system (RMS) that are not covered by any test. You can now:

- Import requirements from a file or DTP.
- Scan your workspace to detect existing correlations between requirements and existing tests.
- Identify requirements that are not covered by any tests and address these gaps by adding appropriate test to your project.
- Make correlations between new tests and imported requirements.

See [Indicating Requirement and Test Correlations](#).

## Extended Coverage Reporting to DTP

You can now publish coverage data for all supported coverage types to DTP to be presented in coverage widgets. This allows you to conveniently analyze coverage statistics and trends on a DTP dashboard. See [Understanding Coverage Types](#) and [Connecting to DTP](#).

# Compiler Support

We've added support for the following compilers:

Compiler Name	Compiler Acronym
ARM Compiler 6.14	armclang_6_14
Clang C/C++ Compiler v 10.0 (x86_64)	clang_10_0
GNU GCC 10.x (x86_64)	gcc_10-64
IAR Compiler for ARM v. 8.50x	iccarm_8_50
Metaware DesignWare ARC C/C++ Compiler P-2019.09	ccac_2019_09

# IDE Support

We've added support for the following IDEs:

- Eclipse 2018-12 (4.10)
- Eclipse 2019-03 (4.11)
- Eclipse 2019-06 (4.12)
- Eclipse 2019-09 (4.13)
- Eclipse 2019-12 (4.14)
- Eclipse 2020-03 (4.15)

# Preview of New Installation Packages

In this release, we've introduced a preview version of new installation packages for Linux and Windows to facilitate the installation process. You can now install C/C++test Professional by simply extracting the contents of your installation package to a desired location - without having to run any scripts or executables.

Note that the new installation packages are available for preview purposes and are not recommended for a production environment. They are shipped along with the regular installers, which remain the primary way of installing C/C++test Professional. Please contact your Parasoft representative for details.

# Other Enhancements

- We've reduced use of disk space when building data sets required to perform flow-based analysis.
- We have enhanced performance of flow-based analysis for the modern C++.
- You can now configure additional advanced settings to fine-tune running static analysis with C/C++test. See [Configuring Advanced Options](#).
- The project creation wizard can now import JSON-formatted build definition files generated by CMake build systems.

# New and Updated Code Analysis Rules

We've added new static analysis rules to extend coverage of compliance standards. See [New Rules](#) and [Updated Rules](#) for the lists of new and updated rules.

# Updated Test Configurations

We've updated the following test configurations:

- AUTOSAR C++14 Coding Guidelines
- Flow Analysis Aggressive
- Flow Analysis Fast
- Flow Analysis Standard
- High Integrity C++
- Joint Strike Fighter
- MISRA C 1998
- MISRA C 2004
- MISRA C 2012
- MISRA C++ 2008

- Recommended Rules for FDA (C)
- Recommended Rules for FDA (C++)
- SEI CERT C Guidelines
- SEI CERT C Rules
- SEI CERT C++ Rules

## Deprecated and Removed Support for Environments

### Deprecated Compilers

Support for the following compilers is deprecated and will be removed in future releases:

- ARM Compiler 6.6
- Intel C++ Compiler v 18.0
- GCC for Tricore 4.9.x

### Deprecated Platforms

Support for the following platforms is deprecated and will be removed in future releases:

- Windows Server 2008
- Windows Server 2012

### Removed IDEs

Support for the following IDEs is removed:

- ARM DS-5 earlier than 5.28
- Eclipse 3.8
- Renesas e2 Studio 5.1
- WindRiver Workbench 3.3
- Texas Instruments Code Composer Studio 6.0

### Removed Source Control Management Systems

Support for the following SCMs is removed:

- AccuRev
- ClearCase
- CVS
- Serena Dimensions
- StarTeam
- Synergy CM
- Visual Source Safe

## Resolved Bugs and FRs

Bug/FR ID	Description
CPP-42547	CERT-C-MSC04 should not report on '/' that is a part of URL
CPP-44289	Add buttons for expanding/collapsing all the test case Steps
CPP-44888	Improve accuracy of MISRA2004-5_1
CPP-44911	CERT_C-INT34-a (MISRA-038) reports false positive on correct shift operation
CPP-44935	CODSTA-125 (CERT_CPP-EXP57-b) reports false positives on conversion from nullptr
CPP-45230	cpptestcc1 crashes when called by cpptestcli with very long command line
CPP-45349	AUTOSAR-A7_1_3-a false positive

CPP-45372	MISRA2008-5_0_6_a false positive
CPP-45430	PREPROC-10 (MISRA2008-16_2_1_b) doesn't detect #endif directives when #ifndef is not used
CPP-45452	HICPP-12_5_2-a (AUTOSAR-A12_7_1-a) reports violation on constructor that can not be defaulted
CPP-45500	more than one instance of overloaded function "ioctl" has "C" linkage
CPP-45501	Coverage: Functions defined in unnamed namespace may occur more than once in coverage view
CPP-45505	error: identifier "r9" is undefined static __no_init uint32_t __iar_SB @ r9;
CPP-45510	CODSTA-CPP-53 reports violation on struct variable
CPP-45514	JSF-041 (METRICS-26) should ignore parasoft-begin-suppress, parasoft-end-suppress comments
CPP-45516	Improve implementation of rule JSF-046
CPP-45748	Brace elision do not work with GCC and Clang
CPP-45769	MISRA2004-8_7 (JSF-136_a) should not report on const variables defined in headers (C++)
CPP-45796	MISRA-005 (JSF-009) reports violation when "@" character is used in project name
CPP-45833	JSF-206 (MISRA2004-20_4) will allow use of 'new' and 'delete' operator member functions
CPP-45834	Explicit constructor used implicitly in auto generated stub
CPP-45855	Error: pack "_UElements" does not have the same number of elements as "_Elements"
CPP-45859	Error: assertion failed at: "scope_stk.c", line 5053 in push_template_instantiation_scope
CPP-45866	MISRA2004-14_8 (MISRAC2012-RULE_15_6-a) reports false positive violation of for-range loop
CPP-45877	Incorrect handling of comma separated preprocessor definition value
CPP-45878	INIT-05 reports violation on ranged based for loop
CPP-45880	GCC allows inconsistent exception specification for system functions
CPP-45912	Improve mapping for JSF-051
CPP-45917	Improve CODSTA-61 (JSF-194, MISRA2008-6_4_6) to better handle multiple enumerators with same value
CPP-45965	Compile error for instrumented code with overloadable attribute
CPP-45975	PB-50 is not aware about %* in scanf
CPP-45978	Rule MISRA2004-15_1 (MISRAC2012-RULE_16_2-a) reports false positive when between 'switch' statement and its body is preprocessor directive
CPP-45979	MISRA2004-17_6_b does not trigger when address of local object is assigned to non-static member
CPP-45992	Exception during testing solution with Solution Folder

CPP-46015	EDG incompatible declaration of built-in functions: <code>__builtin_operator_new</code> and <code>__builtin_operator_delete</code>
CPP-46018	Cannot load violations for MISRAC2012-DIR_4_7-a (BD-PB-CHECKRET) rule
CPP-46031	STL-37 (AUTOSAR-A18_1_1-a) should not report violations on the use of <code>'_func_'</code> macro
CPP-46137	CODSTA-13 (JSF-171) does not report violations on comparisons of expressions of pointer type
CPP-46138	PREPROC-06 reports a violation on header file "sensors/sensor.h"
CPP-46139	Generating tests for <code>vector&lt;uint16_t&gt;</code> causes internal error: assertion failed at: "exprutil.c"
CPP-46142	Incorrect mapping for CERT_C-FI034
CPP-46159	<code>__builtin_launder</code> used in libcpp has different return type in C++17
CPP-46173	False positive for CODSTA-CPP-53 and JSF-117.1
CPP-46177	MISRA2004-14_2 (MISRAC2012-RULE_2_2-a) reports false positive when cast is used in array dimension of function parameter
CPP-46186	False positive for MISRA2004-17_6_a
CPP-46200	IAR: ability to handle long linker command lines
CPP-46219	MISRA2008-5_0_1_f - possible bug on one of two implemented function where more than one volatile type exists
CPP-46266	CODSTA-83 reports false positive when integer constants are cast in loop condition
CPP-46284	Remove mapping SECURITY-19 to CERT_C-POS35-a
CPP-46317	class "boost::units::dimensionless_type" has no member "item"
CPP-46328	Error: static and nonstatic member functions with same parameter types cannot be overloaded
CPP-46334	AUTOSAR A3-3-2 reports violation on non-static class member variable
CPP-46404	HICPP-9_1_5-a (AUTOSAR-A10_3_3-a) reports violations on virtual functions declared as 'final'
CPP-46466	Improve mapping for JSF-111
CPP-46520	False positive for MISRAC2012-RULE_14_2-* rules on <code>std::optional</code>
CPP-46549	Enable support for standard attributes in C++98/03 modes for GCC
FA-7538	BD-PB-ARRAY reports violation in static function
FA-7588	BD-PB-CC false positive when the analysis reaches its depth limits.
FA-7814	BD-PB-CC false positive
FA-7855	BD-PB-ARRAY false negative when multi-dimensional array is used as struct field
FA-7884	BD-PB-NOTINIT - false negative when <code>CString.Format()</code> was used without initialization
FA-7907	BD-API-NEGPARAM should not report violation on neg offset for <code>fseek</code>
FA-7909	BD-PB-BADSHIFT flags violation on <code>uint64_t</code> variable

FA-7913	BD-PB-NP false positive when pointer is assigned address of variable from array
FA-7916	BD-PB-OVERFNZT reports a violation on char arrays
FA-7917	BD-PB-OVERFWR false positive when destination buffer is pointer to vector element
FA-7918	BD-PB-ZERO false positive with std::abs
FA-7919	BD-PB-OVERFNZT false positive when buffer contents are assigned through an alias pointer.
FA-7933	BD-PB-OVERFNZT reports violation on strcpy()
FA-7934	BD-PB-ARRAY does not report violations when macro is used
FA-7938	BD-PB-CC false positive caused by inaccurate floating-point value deduction.
FA-7939	NullPointerException in DependencyFinder.processCfe() when template variable is captured by lambda
FA-7991	False positives for MISRAC2012-RULE_9_1-a and MISRAC2012-DIR_4_1-a (enum with underlying "char" type incorrectly treated as "signed char" for iccam)
FA-7996	BD-PB-SUBSEQMOVE and BD-PB-SUBSEQFRWD false negatives with armclang 6.9
FA-7997	BD-PB-ERRNO reports a false positive when using QNX 5.x (32 bit)
FA-8009	BD-PB-CC reports violation at read os call

## New Rules

Rule ID	Rule Description
BD-PB-PTRSUB	Do not subtract two pointers that do not address elements of the same array
CERT_C-ARR36-b	Do not compare two unrelated pointers
CERT_CPP-CTR54-c	Do not subtract two pointers that do not address elements of the same array
CODSTA-13_b	Pointer subtraction shall only be applied to pointers that address elements of the same array
CODSTA-CPP-105	Define special members as =default when the behavior is equivalent to the compiler's behavior
CODSTA-MCPP-51	Use const container calls when the result is immediately converted to a const iterator
CODSTA-MCPP-52	Do not introduce virtual functions in a final class
FORMAT-47_a	Place CV-qualifiers on the right hand side of the type they apply to
FORMAT-47_b	CV-qualifiers shall be placed on the right hand side of the type that is a typedef or a using name
JSF-046_a	User-specified C++ external identifiers should differ in the first 64 characters
JSF-046_b	User-specified C++ internal identifiers should differ from external identifiers in the first 64 characters
JSF-046_c	User-specified C++ internal identifiers declared in the same scope should differ in the first 64 characters
JSF-051	All letters contained in function and variable names will be composed entirely of lowercase letters
MISRA2004-5_1_a	User-specified C external identifiers should differ in the first 31 characters
MISRA2004-5_1_b	User-specified C internal identifiers should differ from external identifiers in the first 31 characters
MISRA2004-5_1_c	User-specified C internal identifiers declared in the same scope should differ in the first 31 characters
NAMING-54	Use visually distinct identifiers
PORT-34_a	User-specified C++ external identifiers should differ in the first 64 characters
PORT-34_b	User-specified C++ internal identifiers should differ from external identifiers in the first 64 characters
PORT-34_c	User-specified C++ internal identifiers declared in the same scope should differ in the first 64 characters
PORT-35_a	User-specified C external identifiers should differ in the first 31 characters

PORT-35_b	User-specified C internal identifiers should differ from external identifiers in the first 31 characters
PORT-35_c	User-specified C internal identifiers declared in the same scope should differ in the first 31 characters
PORT-36_a	The names of identifiers should not be longer than 31 characters
PORT-36_b	The names of macro identifiers should not be longer than 31 characters

## Updated Rules

Category ID	Rule IDs
AUTOSAR C++14 Coding Guidelines	AUTOSAR-A0_1_1-a, AUTOSAR-A10_3_3-a, AUTOSAR-A12_7_1-a, AUTOSAR-A12_8_3-a, AUTOSAR-A15_0_2-a, AUTOSAR-A15_1_4-a, AUTOSAR-A15_4_5-a, AUTOSAR-A16_0_1-a, AUTOSAR-A18_1_1-a, AUTOSAR-A18_1_6-a, AUTOSAR-A18_5_2-a, AUTOSAR-A18_9_4-a, AUTOSAR-A20_8_5-a, AUTOSAR-A23_0_1-a, AUTOSAR-A27_0_2-a, AUTOSAR-A27_0_2-b, AUTOSAR-A2_3_1-a, AUTOSAR-A3_3_2-a, AUTOSAR-A3_8_1-b, AUTOSAR-A3_8_1-c, AUTOSAR-A5_0_2-a, AUTOSAR-A5_1_1-a, AUTOSAR-A5_2_5-a, AUTOSAR-A5_2_5-c, AUTOSAR-A5_3_2-a, AUTOSAR-A6_4_1-a, AUTOSAR-A6_5_3-a, AUTOSAR-A6_5_4-b, AUTOSAR-A6_6_1-a, AUTOSAR-A7_1_1-a, AUTOSAR-A7_1_3-a, AUTOSAR-A7_1_5-a, AUTOSAR-A7_1_7-a, AUTOSAR-A8_4_3-a, AUTOSAR-A8_4_3-b, AUTOSAR-A8_4_9-a, AUTOSAR-A8_5_0-a, AUTOSAR-M0_1_1-c, AUTOSAR-M0_1_1-f, AUTOSAR-M0_1_1-g, AUTOSAR-M0_1_2-a, AUTOSAR-M0_1_2-ac, AUTOSAR-M0_1_2-c, AUTOSAR-M0_1_2-n, AUTOSAR-M0_1_2-o, AUTOSAR-M0_1_2-p, AUTOSAR-M0_1_2-q, AUTOSAR-M0_1_2-s, AUTOSAR-M0_1_2-x, AUTOSAR-M0_1_2-y, AUTOSAR-M0_1_9-a, AUTOSAR-M0_3_1-a, AUTOSAR-M0_3_1-b, AUTOSAR-M0_3_1-c, AUTOSAR-M0_3_1-d, AUTOSAR-M0_3_1-f, AUTOSAR-M0_3_1-g, AUTOSAR-M0_3_1-i, AUTOSAR-M15_1_1-a, AUTOSAR-M15_1_2-a, AUTOSAR-M3_3_2-a, AUTOSAR-M3_4_1-b, AUTOSAR-M5_0_16-a, AUTOSAR-M5_0_16-b, AUTOSAR-M5_0_17-a, AUTOSAR-M5_0_18-a, AUTOSAR-M5_0_2-a, AUTOSAR-M5_0_6-a, AUTOSAR-M6_4_2-a, AUTOSAR-M6_4_3-a, AUTOSAR-M6_4_3-b, AUTOSAR-M6_4_3-c, AUTOSAR-M6_4_3-d, AUTOSAR-M6_4_3-e, AUTOSAR-M6_4_4-a, AUTOSAR-M6_4_5-a, AUTOSAR-M6_4_6-a, AUTOSAR-M6_4_7-a, AUTOSAR-M6_5_3-a, AUTOSAR-M6_5_4-a, AUTOSAR-M6_5_5-a, AUTOSAR-M6_5_6-a, AUTOSAR-M7_1_2-c, AUTOSAR-M7_5_1-a, AUTOSAR-M7_5_2-a, AUTOSAR-M8_5_2-a
Flow Analysis	BD-API-NEGPARAM, BD-API-STRSIZE, BD-PB-ARRAY, BD-PB-BADSHIFT, BD-PB-CC, BD-PB-ERRNO, BD-PB-NOTINIT, BD-PB-NP, BD-PB-OVERFNZT, BD-PB-OVERFRD, BD-PB-OVERFWR, BD-PB-PTRARR, BD-PB-PTRCMP, BD-PB-SUBSEQFRWD, BD-PB-SUBSEQMOVE, BD-PB-VOVR, BD-RES-LEAKS, BD-TRS-MLOCK, BD-TRS-ORDER
SEI CERT C	CERT_C-API01-a, CERT_C-ARR30-a, CERT_C-ARR36-a, CERT_C-ARR38-a, CERT_C-ARR38-b, CERT_C-ARR38-d, CERT_C-ARR39-a, CERT_C-CON30-a, CERT_C-CON41-a, CERT_C-CON43-a, CERT_C-DCL00-a, CERT_C-DCL02-a, CERT_C-DCL10-a, CERT_C-DCL11-a, CERT_C-DCL11-b, CERT_C-DCL11-c, CERT_C-DCL11-f, CERT_C-DCL22-a, CERT_C-DCL30-a, CERT_C-DCL30-b, CERT_C-DCL36-a, CERT_C-DCL41-a, CERT_C-ENV01-c, CERT_C-ERR30-a, CERT_C-ERR32-a, CERT_C-ERR33-c, CERT_C-EXP08-b, CERT_C-EXP33-a, CERT_C-EXP34-a, CERT_C-FIO22-a, CERT_C-FIO34-a, CERT_C-FIO37-a, CERT_C-FIO42-a, CERT_C-FIO47-a, CERT_C-FIO47-b, CERT_C-FIO47-c, CERT_C-FIO47-f, CERT_C-FLP30-a, CERT_C-FLP34-a, CERT_C-INT10-a, CERT_C-INT31-a, CERT_C-INT31-b, CERT_C-INT31-d, CERT_C-INT31-e, CERT_C-INT31-f, CERT_C-INT31-i, CERT_C-INT31-j, CERT_C-INT31-k, CERT_C-INT34-a, CERT_C-MEM00-e, CERT_C-MEM01-b, CERT_C-MEM01-c, CERT_C-MEM01-d, CERT_C-MEM12-a, CERT_C-MEM31-a, CERT_C-MS01-a, CERT_C-MS01-b, CERT_C-MS04-b, CERT_C-MS07-a, CERT_C-MS07-d, CERT_C-MS07-e, CERT_C-MS09-a, CERT_C-MS12-a, CERT_C-MS12-d, CERT_C-MS12-e, CERT_C-MS17-a, CERT_C-MS19-a, CERT_C-MS19-b, CERT_C-POS30-a, CERT_C-POS51-a, CERT_C-POS54-c, CERT_C-STR03-a, CERT_C-STR31-a, CERT_C-STR31-b, CERT_C-STR32-a, CERT_C-WIN30-a
SEI CERT C++	CERT_CPP-CON53-a, CERT_CPP-CTR54-b, CERT_CPP-ERR56-a, CERT_CPP-ERR57-a, CERT_CPP-EXP53-a, CERT_CPP-EXP54-b, CERT_CPP-EXP54-c, CERT_CPP-EXP57-b, CERT_CPP-EXP63-a, CERT_CPP-FIO51-a, CERT_CPP-STR50-b, CERT_CPP-STR50-c, CERT_CPP-STR51-a
Coding Conventions	CODSTA-04, CODSTA-08, CODSTA-119, CODSTA-125, CODSTA-13, CODSTA-149, CODSTA-161_a, CODSTA-161_b, CODSTA-161_d, CODSTA-161_e, CODSTA-161_f, CODSTA-163_b, CODSTA-164_a, CODSTA-164_b, CODSTA-165_a, CODSTA-165_b, CODSTA-168, CODSTA-169_b, CODSTA-169_c, CODSTA-18, CODSTA-194, CODSTA-23, CODSTA-26, CODSTA-32, CODSTA-33, CODSTA-35, CODSTA-41, CODSTA-53, CODSTA-54, CODSTA-56, CODSTA-61, CODSTA-64, CODSTA-79, CODSTA-81, CODSTA-82, CODSTA-83, CODSTA-85, CODSTA-98
Coding Conventions for C++	CODSTA-CPP-15, CODSTA-CPP-43, CODSTA-CPP-53, CODSTA-CPP-64, CODSTA-CPP-71, CODSTA-CPP-72, CODSTA-CPP-73
Coding Conventions for Modern C++	CODSTA-MCPP-16_e, CODSTA-MCPP-27, CODSTA-MCPP-32, CODSTA-MCPP-40
Comments	COMMENT-11
Common Weakness Enumeration	CWE-119-a, CWE-119-d, CWE-119-e, CWE-125-a, CWE-125-c, CWE-362-e, CWE-476-a, CWE-704-c, CWE-772-a, CWE-787-a, CWE-787-d, CWE-835-a
Exceptions	EXCEPT-11, EXCEPT-12, EXCEPT-22
Formatting	FORMAT-06

High Integrity C++	HICPP-16_1_1-b, HICPP-16_1_2-a, HICPP-17_3_3-a, HICPP-18_2_2-a, HICPP-18_3_2-a, HICPP-1_2_1-a, HICPP-1_2_1-d, HICPP-1_2_1-e, HICPP-1_2_1-i, HICPP-1_2_2-a, HICPP-3_4_1-a, HICPP-3_4_2-a, HICPP-3_5_1-c, HICPP-3_5_1-d, HICPP-4_2_2-f, HICPP-5_1_1-a, HICPP-5_2_1-a, HICPP-5_2_1-c, HICPP-6_1_2-a, HICPP-6_1_2-b, HICPP-6_1_3-a, HICPP-6_1_4-a, HICPP-6_1_4-b, HICPP-6_2_2-a, HICPP-6_2_3-a, HICPP-6_2_4-a, HICPP-6_3_1-a, HICPP-6_4_1-b, HICPP-7_1_2-a, HICPP-8_4_1-a, HICPP-8_4_2-a
Initialization	INIT-03, INIT-05, INIT-16
Joint Strike Fighter	JSF-009, JSF-028, JSF-041, JSF-042, JSF-052, JSF-111, JSF-111_a, JSF-117, JSF-117.1, JSF-125_a, JSF-136_a, JSF-138_a, JSF-142_b, JSF-144, JSF-151, JSF-171, JSF-173, JSF-186_a, JSF-186_d, JSF-186_e, JSF-187, JSF-188, JSF-189, JSF-191, JSF-191_a, JSF-192, JSF-193, JSF-194, JSF-195, JSF-196, JSF-197, JSF-199, JSF-201, JSF-206
Metrics	METRICS-02, METRICS-26
MISRA C 1998	MISRA-005, MISRA-024, MISRA-055, MISRA-058, MISRA-065
MISRA C 2004	MISRA2004-10_1_d, MISRA2004-12_1_a, MISRA2004-13_2, MISRA2004-13_4, MISRA2004-13_5, MISRA2004-13_6, MISRA2004-13_7_aa, MISRA2004-13_7_ab, MISRA2004-13_7_ac, MISRA2004-13_7_ad, MISRA2004-13_7_ae, MISRA2004-13_7_af, MISRA2004-13_7_ag, MISRA2004-13_7_ah, MISRA2004-13_7_z, MISRA2004-14_10, MISRA2004-14_1_a, MISRA2004-14_1_d, MISRA2004-14_1_e, MISRA2004-14_2, MISRA2004-14_4, MISRA2004-14_6, MISRA2004-15_0_a, MISRA2004-15_0_b, MISRA2004-15_1, MISRA2004-15_2, MISRA2004-15_2_b, MISRA2004-15_3, MISRA2004-15_4, MISRA2004-15_4_b, MISRA2004-15_5, MISRA2004-17_3, MISRA2004-17_6_a, MISRA2004-17_6_b, MISRA2004-20_4, MISRA2004-8_7, MISRA2004-9_2
MISRA C++ 2008	MISRA2008-0_1_1_a, MISRA2008-0_1_1_d, MISRA2008-0_1_1_e, MISRA2008-0_1_2_aa, MISRA2008-0_1_2_b, MISRA2008-0_1_2_c, MISRA2008-0_1_2_d, MISRA2008-0_1_2_e, MISRA2008-0_1_2_f, MISRA2008-0_1_2_g, MISRA2008-0_1_2_h, MISRA2008-0_1_2_i, MISRA2008-0_1_2_rz, MISRA2008-0_1_6, MISRA2008-0_1_9, MISRA2008-0_3_1_a, MISRA2008-0_3_1_b, MISRA2008-0_3_1_e, MISRA2008-0_3_1_g, MISRA2008-0_3_1_h, MISRA2008-0_3_1_i, MISRA2008-0_3_1_j, MISRA2008-15_1_1, MISRA2008-15_1_2, MISRA2008-16_2_1_b, MISRA2008-18_4_1, MISRA2008-3_3_2, MISRA2008-3_4_1_b, MISRA2008-5_0_13, MISRA2008-5_0_16_a, MISRA2008-5_0_16_b, MISRA2008-5_0_17, MISRA2008-5_0_18, MISRA2008-5_0_2_a, MISRA2008-5_0_6_a, MISRA2008-6_4_2, MISRA2008-6_4_3_a, MISRA2008-6_4_3_b, MISRA2008-6_4_3_c, MISRA2008-6_4_3_d, MISRA2008-6_4_3_e, MISRA2008-6_4_4, MISRA2008-6_4_5, MISRA2008-6_4_6, MISRA2008-6_4_7, MISRA2008-6_4_8, MISRA2008-6_5_3, MISRA2008-6_5_4, MISRA2008-6_5_5, MISRA2008-6_5_6, MISRA2008-6_6_4, MISRA2008-7_1_1, MISRA2008-7_1_2_b, MISRA2008-7_5_1, MISRA2008-7_5_2_a, MISRA2008-7_5_2_b, MISRA2008-8_5_2
MISRA C 2012 (Legacy)	MISRA2012-DIR-4_12, MISRA2012-DIR-4_13_a, MISRA2012-DIR-4_1_a, MISRA2012-DIR-4_1_b, MISRA2012-DIR-4_1_e, MISRA2012-DIR-4_1_g, MISRA2012-DIR-4_1_h, MISRA2012-DIR-4_1_i, MISRA2012-DIR-4_1_j, MISRA2012-DIR-4_1_k, MISRA2012-RULE-10_1_a, MISRA2012-RULE-10_1_b, MISRA2012-RULE-10_1_d, MISRA2012-RULE-10_1_e, MISRA2012-RULE-10_1_f, MISRA2012-RULE-10_3_b, MISRA2012-RULE-10_4_a, MISRA2012-RULE-10_4_b, MISRA2012-RULE-10_5_a, MISRA2012-RULE-10_5_b, MISRA2012-RULE-11_2, MISRA2012-RULE-14_2_a, MISRA2012-RULE-14_2_c, MISRA2012-RULE-14_2_d, MISRA2012-RULE-14_3_q, MISRA2012-RULE-14_3_r, MISRA2012-RULE-14_3_s, MISRA2012-RULE-14_3_t, MISRA2012-RULE-14_3_u, MISRA2012-RULE-14_3_v, MISRA2012-RULE-14_3_w, MISRA2012-RULE-14_3_x, MISRA2012-RULE-14_3_y, MISRA2012-RULE-14_3_zc, MISRA2012-RULE-14_4, MISRA2012-RULE-15_1, MISRA2012-RULE-15_4, MISRA2012-RULE-15_7, MISRA2012-RULE-16_1_a, MISRA2012-RULE-16_1_b, MISRA2012-RULE-16_1_c, MISRA2012-RULE-16_1_d, MISRA2012-RULE-16_1_e, MISRA2012-RULE-16_1_f, MISRA2012-RULE-16_1_h, MISRA2012-RULE-16_2, MISRA2012-RULE-16_3_a, MISRA2012-RULE-16_3_b, MISRA2012-RULE-16_4_a, MISRA2012-RULE-16_4_b, MISRA2012-RULE-16_6, MISRA2012-RULE-16_7_a, MISRA2012-RULE-16_7_b, MISRA2012-RULE-18_1_a, MISRA2012-RULE-18_1_c, MISRA2012-RULE-18_2, MISRA2012-RULE-18_3, MISRA2012-RULE-18_6_a, MISRA2012-RULE-18_6_b, MISRA2012-RULE-1_3_b, MISRA2012-RULE-1_3_d, MISRA2012-RULE-1_3_e, MISRA2012-RULE-1_3_m, MISRA2012-RULE-1_3_n, MISRA2012-RULE-21_17_a, MISRA2012-RULE-21_17_b, MISRA2012-RULE-21_18, MISRA2012-RULE-21_3, MISRA2012-RULE-22_1, MISRA2012-RULE-22_10, MISRA2012-RULE-22_8, MISRA2012-RULE-22_9, MISRA2012-RULE-2_1_a, MISRA2012-RULE-2_1_d, MISRA2012-RULE-2_1_e, MISRA2012-RULE-2_2_a, MISRA2012-RULE-2_2_b, MISRA2012-RULE-3_1_b, MISRA2012-RULE-8_9, MISRA2012-RULE-9_1, MISRA2012-RULE-9_2
MISRA C 2012	MISRAC2012-DIR_4_1-a, MISRAC2012-DIR_4_1-b, MISRAC2012-DIR_4_1-e, MISRAC2012-DIR_4_1-g, MISRAC2012-DIR_4_1-h, MISRAC2012-DIR_4_1-i, MISRAC2012-DIR_4_1-j, MISRAC2012-DIR_4_12-a, MISRAC2012-DIR_4_13-a, MISRAC2012-RULE_10_1-a, MISRAC2012-RULE_10_1-b, MISRAC2012-RULE_10_1-d, MISRAC2012-RULE_10_1-e, MISRAC2012-RULE_10_1-f, MISRAC2012-RULE_10_3-b, MISRAC2012-RULE_10_4-a, MISRAC2012-RULE_10_4-b, MISRAC2012-RULE_10_5-a, MISRAC2012-RULE_10_5-b, MISRAC2012-RULE_11_2-a, MISRAC2012-RULE_14_2-a, MISRAC2012-RULE_14_2-c, MISRAC2012-RULE_14_2-d, MISRAC2012-RULE_14_3-ac, MISRAC2012-RULE_14_3-q, MISRAC2012-RULE_14_3-r, MISRAC2012-RULE_14_3-s, MISRAC2012-RULE_14_3-t, MISRAC2012-RULE_14_3-u, MISRAC2012-RULE_14_3-v, MISRAC2012-RULE_14_3-w, MISRAC2012-RULE_14_3-x, MISRAC2012-RULE_14_3-y, MISRAC2012-RULE_14_4-a, MISRAC2012-RULE_15_1-a, MISRAC2012-RULE_15_4-a, MISRAC2012-RULE_15_7-a, MISRAC2012-RULE_16_1-a, MISRAC2012-RULE_16_1-b, MISRAC2012-RULE_16_1-c, MISRAC2012-RULE_16_1-d, MISRAC2012-RULE_16_1-e, MISRAC2012-RULE_16_1-f, MISRAC2012-RULE_16_1-h, MISRAC2012-RULE_16_2-a, MISRAC2012-RULE_16_3-a, MISRAC2012-RULE_16_3-b, MISRAC2012-RULE_16_4-a, MISRAC2012-RULE_16_4-b, MISRAC2012-RULE_16_6-a, MISRAC2012-RULE_16_7-a, MISRAC2012-RULE_16_7-b, MISRAC2012-RULE_18_1-a, MISRAC2012-RULE_18_1-c, MISRAC2012-RULE_18_2-a, MISRAC2012-RULE_18_3-a, MISRAC2012-RULE_18_6-a, MISRAC2012-RULE_1_3-b, MISRAC2012-RULE_1_3-d, MISRAC2012-RULE_1_3-e, MISRAC2012-RULE_1_3-m, MISRAC2012-RULE_1_3-n, MISRAC2012-RULE_21_17-a, MISRAC2012-RULE_21_17-b, MISRAC2012-RULE_21_18-a, MISRAC2012-RULE_21_3-a, MISRAC2012-RULE_22_1-a, MISRAC2012-RULE_22_10-a, MISRAC2012-RULE_22_8-a, MISRAC2012-RULE_22_9-a, MISRAC2012-RULE_2_1-a, MISRAC2012-RULE_2_1-d, MISRAC2012-RULE_2_1-e, MISRAC2012-RULE_2_2-a, MISRAC2012-RULE_2_2-b, MISRAC2012-RULE_3_1-b, MISRAC2012-RULE_8_9-a, MISRAC2012-RULE_9_1-a, MISRAC2012-RULE_9_2-a
Memory and Resource Management	MRM-09, MRM-10, MRM-11, MRM-51
Naming Conventions	NAMING-04, NAMING-42, NAMING-44



Optimizations	OPT-14, OPT-20, OPT-21, OPT-22, OPT-39
OWASP Top 10 Most Critical Web Application Security Risks (2017)	OWASP2017-A6-c
Possible Bugs	PB-13, PB-45, PB-46, PB-47, PB-50
Portability	PORT-10, PORT-25
Preprocessor	PREPROC-06, PREPROC-10
STL Best Practices	STL-04, STL-10, STL-12, STL-37

## Removed Rules

The following rules have been removed to enhance the accuracy of results:

Category ID	Rule IDs
SEI CERT C	CERT_C-POS35-a
Joint Strike Fighter	JSF-046, JSF-051_a, JSF-051_b, JSF-051_c, JSF-051_d, JSF-051_e
MISRA C 2004	MISRA2004-5_1