

# Coverity Static Analysis Support for MISRA Coding Standards

**Fully ensure the safety, reliability, and security of software written in C and C++**

## Overview

Software is eating the world. Industries that have traditionally relied on mechanical, electronic, and analog control systems are increasingly replacing them with software-driven systems. The average car, for example, is expected to contain 300 million lines of code in the next decade, up from 100 million lines of code today. But with the growth of software comes the growth of software defects, which often manifest in these systems physically and tangibly—with life-threatening consequences in the worst scenarios. Perhaps more importantly, malicious actors can deliberately trigger failures for their own purposes.

Highly complex industries involve many vendors and suppliers simultaneously contributing to the software that goes into the final product. Every participant in this software supply chain must reach consensus on coding standards, defect reporting structures, and so on. The confluence of these two factors—increasing complexity in software systems and longer software supply chains—creates the demand for new tools.

The MISRA C and C++ coding standards are widely used in safety-critical industries, such as automotive, medical, military, and aerospace. The standards provide a set of best practices for writing C and C++ code, facilitating the authorship of safe, secure, and portable code. With Coverity Static Analysis, Synopsys provides a comprehensive solution for MISRA standard compliance that is scalable from individual developers all the way to complex software supply chains.

## MISRA C:2004

The MISRA C:2004 coding standard supports the C90 language specification. It was first released in 2004 and consists of 142 rules: 122 required and 20 advisory. Coverity covers the entire MISRA C:2004 standard.\*

\* All rules that can be checked by static analysis are supported. MISRA C:2004 contains 11 rules that are not statically checkable, so a total of 131 are implemented (out of 142).

## MISRA C:2004 rule coverage

	Supported	All	Percent coverage
<b>All</b>	131	142	92.3%
<b>Required</b>	115	123	93.5%
<b>Advisory</b>	16	19	84.2%

## MISRA C:2004 supported rules

Rule	Category	Supported	Notes
Rule 1.1	Required	Yes	
Rule 1.2	Required	Yes	
Rule 1.3	Required	No	This rule is not statically verifiable.
Rule 1.4	Required	No	This rule is not statically verifiable.
Rule 1.5	Required	No	This rule is not statically verifiable.
Rule 2.1	Required	Yes	
Rule 2.2	Required	Yes	
Rule 2.3	Required	Yes	
Rule 2.4	Advisory	Yes	
Rule 3.1	Advisory	No	This rule is not statically verifiable.
Rule 3.2	Advisory	No	This rule is not statically verifiable.
Rule 3.3	Advisory	No	This rule is not statically verifiable.
Rule 3.4	Required	No	This rule is not statically verifiable.
Rule 3.5	Required	No	This rule is not statically verifiable.
Rule 3.6	Required	No	This rule is not statically verifiable.
Rule 4.1	Required	Yes	
Rule 4.2	Required	Yes	
Rule 5.1	Required	Yes	
Rule 5.2	Required	Yes	

Rule	Category	Supported	Notes
Rule 5.3	Required	Yes	
Rule 5.4	Required	Yes	
Rule 5.5	Advisory	Yes	
Rule 5.6	Advisory	Yes	
Rule 5.7	Advisory	Yes	
Rule 6.1	Required	Yes	
Rule 6.2	Required	Yes	
Rule 6.3	Advisory	Yes	
Rule 6.4	Required	Yes	
Rule 6.5	Required	Yes	
Rule 7.1	Required	Yes	
Rule 8.1	Required	Yes	
Rule 8.2	Required	Yes	
Rule 8.3	Required	Yes	
Rule 8.4	Required	Yes	
Rule 8.5	Required	Yes	
Rule 8.6	Required	Yes	
Rule 8.7	Required	Yes	
Rule 8.8	Required	Yes	

Rule	Category	Supported	Notes
Rule 8.9	Required	Yes	
Rule 8.10	Required	Yes	
Rule 8.11	Required	Yes	
Rule 8.12	Required	Yes	
Rule 9.1	Required	Yes	
Rule 9.2	Required	Yes	
Rule 9.3	Required	Yes	
Rule 10.1	Required	Yes	
Rule 10.2	Required	Yes	
Rule 10.3	Required	Yes	
Rule 10.4	Required	Yes	
Rule 10.5	Required	Yes	
Rule 10.6	Required	Yes	
Rule 11.1	Required	Yes	
Rule 11.2	Required	Yes	
Rule 11.3	Advisory	Yes	
Rule 11.4	Advisory	Yes	
Rule 11.5	Required	Yes	
Rule 12.1	Advisory	Yes	
Rule 12.2	Required	Yes	
Rule 12.3	Required	Yes	
Rule 12.4	Required	Yes	
Rule 12.5	Required	Yes	
Rule 12.6	Advisory	Yes	
Rule 12.7	Required	Yes	
Rule 12.8	Required	Yes	
Rule 12.9	Required	Yes	
Rule 12.10	Required	Yes	
Rule 12.11	Advisory	Yes	

Rule	Category	Supported	Notes
Rule 12.12	Required	Yes	
Rule 12.13	Advisory	Yes	
Rule 13.1	Required	Yes	
Rule 13.2	Advisory	Yes	
Rule 13.3	Required	Yes	
Rule 13.4	Required	Yes	
Rule 13.5	Required	Yes	
Rule 13.6	Required	Yes	
Rule 13.7	Required	Yes	
Rule 14.1	Required	Yes	
Rule 14.2	Required	Yes	
Rule 14.3	Required	Yes	
Rule 14.4	Required	Yes	
Rule 14.5	Required	Yes	
Rule 14.6	Required	Yes	
Rule 14.7	Required	Yes	
Rule 14.8	Required	Yes	
Rule 14.9	Required	Yes	
Rule 14.10	Required	Yes	
Rule 15.0	Required	Yes	
Rule 15.1	Required	Yes	
Rule 15.2	Required	Yes	
Rule 15.3	Required	Yes	
Rule 15.4	Required	Yes	
Rule 15.5	Required	Yes	
Rule 16.1	Required	Yes	
Rule 16.2	Required	Yes	
Rule 16.3	Required	Yes	
Rule 16.4	Required	Yes	

Rule	Category	Supported	Notes
Rule 16.5	Required	Yes	
Rule 16.6	Required	Yes	
Rule 16.7	Required	Yes	
Rule 16.8	Required	Yes	
Rule 16.9	Required	Yes	
Rule 16.10	Required	Yes	
Rule 17.1	Required	Yes	
Rule 17.2	Required	Yes	
Rule 17.3	Required	Yes	
Rule 17.4	Required	Yes	
Rule 17.5	Required	Yes	
Rule 17.6	Required	Yes	
Rule 18.1	Required	Yes	
Rule 18.2	Required	Yes	
Rule 18.3	Required	No	This rule is not statically verifiable.
Rule 18.4	Required	Yes	
Rule 19.1	Advisory	Yes	
Rule 19.2	Advisory	Yes	
Rule 19.3	Required	Yes	
Rule 19.4	Required	Yes	
Rule 19.5	Required	Yes	
Rule 19.6	Required	Yes	
Rule 19.7	Advisory	Yes	
Rule 19.8	Required	Yes	

Rule	Category	Supported	Notes
Rule 19.9	Required	Yes	
Rule 19.10	Required	Yes	
Rule 19.11	Required	Yes	
Rule 19.12	Required	Yes	
Rule 19.13	Advisory	Yes	
Rule 19.14	Required	Yes	
Rule 19.15	Required	Yes	
Rule 19.16	Required	Yes	
Rule 19.17	Required	Yes	
Rule 20.1	Required	Yes	
Rule 20.2	Required	Yes	
Rule 20.3	Required	Yes	
Rule 20.4	Required	Yes	
Rule 20.5	Required	Yes	
Rule 20.6	Required	Yes	
Rule 20.7	Required	Yes	
Rule 20.8	Required	Yes	
Rule 20.9	Required	Yes	
Rule 20.10	Required	Yes	
Rule 20.11	Required	Yes	
Rule 20.12	Required	Yes	
Rule 21.1	Required	No	No checker, but successful analysis run confirms compliance.

## MISRA C++:2008

The MISRA C++:2008 coding standard supports the C++ programming language as defined by the C++03 language specification. It was first released in June 2008 and consists of 228 rules: 198 required, 18 advisory, and 12 document. Coverity covers the full MISRA C++:2008 standard.\*\*

\* All rules that can be checked by static analysis are supported. MISRA C++:2008 contains 13 rules that are not statically checkable, so a total of 215 are implemented (out of 228).

## MISRA C++:2008 rule coverage

	Supported	All	Percent coverage
<b>All</b>	215	228	94.3%
<b>Required</b>	197	198	99.5%
<b>Advisory</b>	18	19	100.0%
<b>Document</b>	0	12	0.0%

## MISRA C++:2008 supported rules

Rule	Category	Supported	Notes
<b>Rule 0-1-1</b>	Required	Yes	
<b>Rule 0-1-2</b>	Required	Yes	
<b>Rule 0-1-3</b>	Required	Yes	
<b>Rule 0-1-4</b>	Required	Yes	
<b>Rule 0-1-5</b>	Required	Yes	
<b>Rule 0-1-6</b>	Required	Yes	
<b>Rule 0-1-7</b>	Required	Yes	
<b>Rule 0-1-8</b>	Required	Yes	
<b>Rule 0-1-9</b>	Required	Yes	
<b>Rule 0-1-10</b>	Required	Yes	
<b>Rule 0-1-11</b>	Required	Yes	
<b>Rule 0-1-12</b>	Required	Yes	
<b>Rule 0-2-1</b>	Required	Yes	
<b>Rule 0-3-1</b>	Document	No	Static analysis cannot determine whether the code was written in accordance to a particular development process.
<b>Rule 0-3-2</b>	Required	Yes	
<b>Rule 0-4-1</b>	Document	No	Documentation cannot be programmatically analyzed.
<b>Rule 0-4-2</b>	Document	No	Documentation cannot be programmatically analyzed.

Rule	Category	Supported	Notes
<b>Rule 0-4-3</b>	Document	No	Compiler and library behaviors in regard to floating-point arithmetics are out of scope of static analysis.
<b>Rule 1-0-1</b>	Required	Yes	
<b>Rule 1-0-2</b>	Document	No	Compiler and linker behaviors in regard to scope of static analysis.
<b>Rule 1-0-3</b>	Document	No	Documentation cannot be programmatically analyzed.
<b>Rule 2-2-1</b>	Document	No	Documentation cannot be programmatically analyzed.
<b>Rule 2-3-1</b>	Required	Yes	
<b>Rule 2-5-1</b>	Advisory	Yes	
<b>Rule 2-7-1</b>	Required	Yes	
<b>Rule 2-7-2</b>	Required	Yes	
<b>Rule 2-7-3</b>	Advisory	Yes	
<b>Rule 2-10-1</b>	Required	Yes	
<b>Rule 2-10-2</b>	Required	Yes	
<b>Rule 2-10-3</b>	Required	Yes	
<b>Rule 2-10-4</b>	Required	Yes	
<b>Rule 2-10-5</b>	Advisory	Yes	
<b>Rule 2-10-6</b>	Required	Yes	

Rule	Category	Supported	Notes
Rule 2-13-1	Required	Yes	
Rule 2-13-2	Required	Yes	
Rule 2-13-3	Required	Yes	
Rule 2-13-4	Required	Yes	
Rule 2-13-5	Required	Yes	
Rule 3-1-1	Required	Yes	
Rule 3-1-2	Required	Yes	
Rule 3-1-3	Required	Yes	
Rule 3-2-1	Required	Yes	
Rule 3-2-2	Required	Yes	
Rule 3-2-3	Required	Yes	
Rule 3-2-4	Required	Yes	
Rule 3-3-1	Required	Yes	
Rule 3-3-2	Required	Yes	
Rule 3-4-1	Required	Yes	
Rule 3-9-1	Required	Yes	
Rule 3-9-2	Advisory	Yes	
Rule 3-9-3	Required	Yes	
Rule 4-5-1	Required	Yes	
Rule 4-5-2	Required	Yes	
Rule 4-5-3	Required	Yes	
Rule 4-10-1	Required	Yes	
Rule 4-10-2	Required	Yes	
Rule 5-0-1	Required	Yes	
Rule 5-0-2	Advisory	Yes	
Rule 5-0-3	Required	Yes	
Rule 5-0-4	Required	Yes	
Rule 5-0-5	Required	Yes	
Rule 5-0-6	Required	Yes	

Rule	Category	Supported	Notes
Rule 5-0-7	Required	Yes	
Rule 5-0-8	Required	Yes	
Rule 5-0-9	Required	Yes	
Rule 5-0-10	Required	Yes	
Rule 5-0-11	Required	Yes	
Rule 5-0-12	Required	Yes	
Rule 5-0-13	Required	Yes	
Rule 5-0-14	Required	Yes	
Rule 5-0-15	Required	Yes	
Rule 5-0-16	Required	Yes	
Rule 5-0-17	Required	Yes	
Rule 5-0-18	Required	Yes	
Rule 5-0-19	Required	Yes	
Rule 5-0-20	Required	Yes	
Rule 5-0-21	Required	Yes	
Rule 5-2-1	Required	Yes	
Rule 5-2-2	Required	Yes	
Rule 5-2-3	Advisory	Yes	
Rule 5-2-4	Required	Yes	
Rule 5-2-5	Required	Yes	
Rule 5-2-6	Required	Yes	
Rule 5-2-7	Required	Yes	
Rule 5-2-8	Required	Yes	
Rule 5-2-9	Advisory	Yes	
Rule 5-2-10	Advisory	Yes	
Rule 5-2-11	Required	Yes	
Rule 5-2-12	Required	Yes	
Rule 5-3-1	Required	Yes	
Rule 5-3-2	Required	Yes	

Rule	Category	Supported	Notes
Rule 5-3-3	Required	Yes	
Rule 5-3-4	Required	Yes	
Rule 5-8-1	Required	Yes	
Rule 5-14-1	Required	Yes	
Rule 5-17-1	Required	No	Static analysis cannot reason about high-level semantics of the source code.
Rule 5-18-1	Required	Yes	
Rule 5-19-1	Advisory	Yes	
Rule 6-2-1	Required	Yes	
Rule 6-2-2	Required	Yes	
Rule 6-2-3	Required	Yes	
Rule 6-3-1	Required	Yes	
Rule 6-4-1	Required	Yes	
Rule 6-4-2	Required	Yes	
Rule 6-4-3	Required	Yes	
Rule 6-4-4	Required	Yes	
Rule 6-4-5	Required	Yes	
Rule 6-4-6	Required	Yes	
Rule 6-4-7	Required	Yes	
Rule 6-4-8	Required	Yes	
Rule 6-5-1	Required	Yes	
Rule 6-5-2	Required	Yes	
Rule 6-5-3	Required	Yes	
Rule 6-5-4	Required	Yes	
Rule 6-5-5	Required	Yes	
Rule 6-5-6	Required	Yes	
Rule 6-6-1	Required	Yes	
Rule 6-6-2	Required	Yes	
Rule 6-6-3	Required	Yes	

Rule	Category	Supported	Notes
Rule 6-6-4	Required	Yes	
Rule 6-6-5	Required	Yes	
Rule 7-1-1	Required	Yes	
Rule 7-1-2	Required	Yes	
Rule 7-2-1	Required	Yes	
Rule 7-3-1	Required	Yes	
Rule 7-3-2	Required	Yes	
Rule 7-3-3	Required	Yes	
Rule 7-3-4	Required	Yes	
Rule 7-3-5	Required	Yes	
Rule 7-3-6	Required	Yes	
Rule 7-4-1	Document	No	Documentation cannot be programmatically analyzed.
Rule 7-4-2	Required	Yes	
Rule 7-4-3	Required	Yes	
Rule 7-5-1	Required	Yes	
Rule 7-5-2	Required	Yes	
Rule 7-5-3	Required	Yes	
Rule 7-5-4	Advisory	Yes	
Rule 8-0-1	Required	Yes	
Rule 8-3-1	Required	Yes	
Rule 8-4-1	Required	Yes	
Rule 8-4-2	Required	Yes	
Rule 8-4-3	Required	Yes	
Rule 8-4-4	Required	Yes	
Rule 8-5-1	Required	Yes	
Rule 8-5-2	Required	Yes	
Rule 8-5-3	Required	Yes	
Rule 9-3-1	Required	Yes	
Rule 9-3-2	Required	Yes	

Rule	Category	Supported	Notes
<b>Rule 9-3-3</b>	Required	Yes	
<b>Rule 9-5-1</b>	Required	Yes	
<b>Rule 9-6-1</b>	Document	No	Documentation cannot be programmatically analyzed.
<b>Rule 9-6-2</b>	Required	Yes	
<b>Rule 9-6-3</b>	Required	Yes	
<b>Rule 9-6-4</b>	Required	Yes	
<b>Rule 10-1-1</b>	Advisory	Yes	
<b>Rule 10-1-2</b>	Required	Yes	
<b>Rule 10-1-3</b>	Required	Yes	
<b>Rule 10-2-1</b>	Advisory	Yes	
<b>Rule 10-3-1</b>	Required	Yes	
<b>Rule 10-3-2</b>	Required	Yes	
<b>Rule 10-3-3</b>	Required	Yes	
<b>Rule 11-0-1</b>	Required	Yes	
<b>Rule 12-1-1</b>	Required	Yes	
<b>Rule 12-1-2</b>	Advisory	Yes	
<b>Rule 12-1-3</b>	Required	Yes	
<b>Rule 12-8-1</b>	Required	Yes	
<b>Rule 12-8-2</b>	Required	Yes	
<b>Rule 14-5-1</b>	Required	Yes	
<b>Rule 14-5-2</b>	Required	Yes	
<b>Rule 14-5-3</b>	Required	Yes	
<b>Rule 14-6-1</b>	Required	Yes	
<b>Rule 14-6-2</b>	Required	Yes	
<b>Rule 14-7-1</b>	Required	Yes	
<b>Rule 14-7-2</b>	Required	Yes	
<b>Rule 14-7-3</b>	Required	Yes	
<b>Rule 14-8-1</b>	Required	Yes	
<b>Rule 14-8-2</b>	Advisory	Yes	

Rule	Category	Supported	Notes
<b>Rule 15-0-1</b>	Document	No	Documentation cannot be programmatically analyzed.
<b>Rule 15-0-2</b>	Advisory	Yes	
<b>Rule 15-0-3</b>	Required	Yes	
<b>Rule 15-1-1</b>	Required	Yes	
<b>Rule 15-1-2</b>	Required	Yes	
<b>Rule 15-1-3</b>	Required	Yes	
<b>Rule 15-3-1</b>	Required	Yes	
<b>Rule 15-3-2</b>	Advisory	Yes	
<b>Rule 15-3-3</b>	Required	Yes	
<b>Rule 15-3-4</b>	Required	Yes	
<b>Rule 15-3-5</b>	Required	Yes	
<b>Rule 15-3-6</b>	Required	Yes	
<b>Rule 15-3-7</b>	Required	Yes	
<b>Rule 15-4-1</b>	Required	Yes	
<b>Rule 15-5-1</b>	Required	Yes	
<b>Rule 15-5-2</b>	Required	Yes	
<b>Rule 15-5-3</b>	Required	Yes	
<b>Rule 16-0-1</b>	Required	Yes	
<b>Rule 16-0-2</b>	Required	Yes	
<b>Rule 16-0-3</b>	Required	Yes	
<b>Rule 16-0-4</b>	Required	Yes	
<b>Rule 16-0-5</b>	Required	Yes	
<b>Rule 16-0-6</b>	Required	Yes	
<b>Rule 16-0-7</b>	Required	Yes	
<b>Rule 16-0-8</b>	Required	Yes	
<b>Rule 16-1-1</b>	Required	Yes	
<b>Rule 16-1-2</b>	Required	Yes	
<b>Rule 16-2-1</b>	Required	Yes	
<b>Rule 16-2-2</b>	Required	Yes	



Rule	Category	Supported	Notes
<b>Rule 16-2-3</b>	Required	Yes	
<b>Rule 16-2-4</b>	Required	Yes	
<b>Rule 16-2-5</b>	Advisory	Yes	
<b>Rule 16-2-6</b>	Required	Yes	
<b>Rule 16-3-1</b>	Required	Yes	
<b>Rule 16-3-2</b>	Advisory	Yes	
<b>Rule 16-6-1</b>	Document	No	Documentation cannot be programmatically analyzed.
<b>Rule 17-0-1</b>	Required	Yes	
<b>Rule 17-0-2</b>	Required	Yes	
<b>Rule 17-0-3</b>	Required	Yes	
<b>Rule 17-0-4</b>	Document	No	Static analysis cannot determine the compliance of a particular library with the MISRA standard, as the source code may not necessarily be available.

Rule	Category	Supported	Notes
<b>Rule 17-0-5</b>	Required	Yes	
<b>Rule 18-0-1</b>	Required	Yes	
<b>Rule 18-0-2</b>	Required	Yes	
<b>Rule 18-0-3</b>	Required	Yes	
<b>Rule 18-0-4</b>	Required	Yes	
<b>Rule 18-0-5</b>	Required	Yes	
<b>Rule 18-2-1</b>	Required	Yes	
<b>Rule 18-4-1</b>	Required	Yes	
<b>Rule 18-7-1</b>	Required	Yes	
<b>Rule 19-3-1</b>	Required	Yes	
<b>Rule 27-0-1</b>	Required	Yes	

## MISRA C:2012

The MISRA C:2012 coding standard supports the C90 and C99 language specifications. MISRA C:2012

Amendment 1 was released in 2016 and consists of 173 guidelines: 156 rules and 17 directives. Coverity covers the entire MISRA C:2012 standard, including Amendment 1. In addition, checker implementations adhere to the Technical Corrigendum 1, released in July 2017.\*

\* All rules that can be checked by static analysis are supported. MISRA C:2012 contains 3 rules that are not statically checkable, so a total of 170 are implemented (out of 173).

## MISRA C:2012 rule coverage

	Decidable		Undecidable		Subtotal		Percent coverage
	Supported	All	Supported	All	Supported	All	
All	119	119	51	54	170	173	98.3%
Mandatory	5	5	11	11	16	16	100.0%
Required	86	86	30	32	116	118	98.3%
Advisory	28	28	10	11	38	39	97.4%

## MISRA C:2012 supported rules

Rule	Category	Decidability	Supported	Notes
Directive 1.1	Required	Undecidable	No	This directive is not statically verifiable.
Directive 2.1	Required	Undecidable	Yes	No checker, but a successful analysis run confirms compliance.
Directive 3.1	Required	Undecidable	No	This directive is not statically verifiable.
Directive 4.1	Required	Undecidable	Yes	No checker, but the use of MISRA analysis will assist in minimizing runtime failures.
Directive 4.2	Advisory	Undecidable	No	This directive is not statically verifiable.
Directive 4.3	Required	Undecidable	Yes	
Directive 4.4	Advisory	Undecidable	Yes	
Directive 4.5	Advisory	Undecidable	Yes	
Directive 4.6	Advisory	Undecidable	Yes	Adheres to Technical Corrigendum 1.
Directive 4.7	Required	Undecidable	Yes	
Directive 4.8	Advisory	Undecidable	Yes	Adheres to Technical Corrigendum 1.
Directive 4.9	Advisory	Undecidable	Yes	
Directive 4.10	Required	Undecidable	Yes	
Directive 4.11	Required	Undecidable	Yes	Adheres to Technical Corrigendum 1.
Directive 4.12	Required	Undecidable	Yes	

Rule	Category	Decidability	Supported	Notes
Directive 4.13	Advisory	Undecidable	Yes	
Directive 4.14	Required	Undecidable	Yes	New directive in Amendment 1.
Rule 1.1	Required	Decidable	Yes	No checker, but a successful analysis run confirms compliance.
Rule 1.2	Advisory	Undecidable	Yes	
Rule 1.3	Required	Undecidable	Yes	
Rule 2.1	Required	Undecidable	Yes	
Rule 2.2	Required	Undecidable	Yes	Adheres to Technical Corrigendum 1.
Rule 2.3	Advisory	Decidable	Yes	
Rule 2.4	Advisory	Decidable	Yes	
Rule 2.5	Advisory	Decidable	Yes	Adheres to Technical Corrigendum 1.
Rule 2.6	Advisory	Decidable	Yes	
Rule 2.7	Advisory	Decidable	Yes	
Rule 3.1	Required	Decidable	Yes	
Rule 3.2	Required	Decidable	Yes	
Rule 4.1	Required	Decidable	Yes	
Rule 4.2	Advisory	Decidable	Yes	
Rule 5.1	Required	Decidable	Yes	
Rule 5.2	Required	Decidable	Yes	
Rule 5.3	Required	Decidable	Yes	
Rule 5.4	Required	Decidable	Yes	
Rule 5.5	Required	Decidable	Yes	
Rule 5.6	Required	Decidable	Yes	
Rule 5.7	Required	Decidable	Yes	
Rule 5.8	Required	Decidable	Yes	
Rule 5.9	Advisory	Decidable	Yes	Adheres to Technical Corrigendum 1.
Rule 6.1	Required	Decidable	Yes	
Rule 6.2	Required	Decidable	Yes	
Rule 7.1	Required	Decidable	Yes	

Rule	Category	Decidability	Supported	Notes
Rule 7.2	Required	Decidable	Yes	
Rule 7.3	Required	Decidable	Yes	
Rule 7.4	Required	Decidable	Yes	
Rule 8.1	Required	Decidable	Yes	
Rule 8.2	Required	Decidable	Yes	
Rule 8.3	Required	Decidable	Yes	
Rule 8.4	Required	Decidable	Yes	Adheres to Technical Corrigendum 1.
Rule 8.5	Required	Decidable	Yes	
Rule 8.6	Required	Decidable	Yes	
Rule 8.7	Advisory	Decidable	Yes	
Rule 8.8	Required	Decidable	Yes	
Rule 8.9	Advisory	Decidable	Yes	
Rule 8.10	Required	Decidable	Yes	
Rule 8.11	Advisory	Decidable	Yes	
Rule 8.12	Required	Decidable	Yes	
Rule 8.13	Advisory	Undecidable	Yes	
Rule 8.14	Required	Decidable	Yes	
Rule 9.1	Mandatory	Undecidable	Yes	
Rule 9.2	Required	Decidable	Yes	
Rule 9.3	Required	Decidable	Yes	
Rule 9.4	Required	Decidable	Yes	
Rule 9.5	Required	Decidable	Yes	
Rule 10.1	Required	Decidable	Yes	Adheres to Technical Corrigendum 1.
Rule 10.2	Required	Decidable	Yes	
Rule 10.3	Required	Decidable	Yes	Adheres to Technical Corrigendum 1.
Rule 10.4	Required	Decidable	Yes	Adheres to Technical Corrigendum 1.
Rule 10.5	Advisory	Decidable	Yes	Adheres to Technical Corrigendum 1.
Rule 10.6	Required	Decidable	Yes	

Rule	Category	Decidability	Supported	Notes
Rule 10.7	Required	Decidable	Yes	
Rule 10.8	Required	Decidable	Yes	Adheres to Technical Corrigendum 1.
Rule 11.1	Required	Decidable	Yes	
Rule 11.2	Required	Decidable	Yes	Adheres to Technical Corrigendum 1.
Rule 11.3	Required	Decidable	Yes	
Rule 11.4	Advisory	Decidable	Yes	Adheres to Technical Corrigendum 1.
Rule 11.5	Advisory	Decidable	Yes	
Rule 11.6	Required	Decidable	Yes	
Rule 11.7	Required	Decidable	Yes	
Rule 11.8	Required	Decidable	Yes	
Rule 11.9	Required	Decidable	Yes	Adheres to Technical Corrigendum 1.
Rule 12.1	Advisory	Decidable	Yes	
Rule 12.2	Required	Undecidable	Yes	
Rule 12.3	Advisory	Decidable	Yes	
Rule 12.4	Advisory	Decidable	Yes	Adheres to Technical Corrigendum 1.
Rule 12.5	Mandatory	Decidable	Yes	New rule in Amendment 1.
Rule 13.1	Required	Undecidable	Yes	
Rule 13.2	Required	Undecidable	Yes	Adheres to Technical Corrigendum 1.
Rule 13.3	Advisory	Decidable	Yes	
Rule 13.4	Advisory	Decidable	Yes	
Rule 13.5	Required	Undecidable	Yes	
Rule 13.6	Mandatory	Decidable	Yes	
Rule 14.1	Required	Undecidable	Yes	
Rule 14.2	Required	Undecidable	Yes	Adheres to Technical Corrigendum 1.
Rule 14.3	Required	Undecidable	Yes	
Rule 14.4	Required	Decidable	Yes	
Rule 15.1	Advisory	Decidable	Yes	
Rule 15.2	Required	Decidable	Yes	

Rule	Category	Decidability	Supported	Notes
Rule 15.3	Required	Decidable	Yes	
Rule 15.4	Advisory	Decidable	Yes	
Rule 15.5	Advisory	Decidable	Yes	
Rule 15.6	Required	Decidable	Yes	Adheres to Technical Corrigendum 1.
Rule 15.7	Required	Decidable	Yes	Adheres to Technical Corrigendum 1.
Rule 16.1	Required	Decidable	Yes	Adheres to Technical Corrigendum 1.
Rule 16.2	Required	Decidable	Yes	
Rule 16.3	Required	Decidable	Yes	
Rule 16.4	Required	Decidable	Yes	
Rule 16.5	Required	Decidable	Yes	
Rule 16.6	Required	Decidable	Yes	
Rule 16.7	Required	Decidable	Yes	
Rule 17.1	Required	Decidable	Yes	
Rule 17.2	Required	Undecidable	Yes	
Rule 17.3	Mandatory	Decidable	Yes	
Rule 17.4	Mandatory	Decidable	Yes	
Rule 17.5	Advisory	Undecidable	Yes	
Rule 17.6	Mandatory	Decidable	Yes	
Rule 17.7	Required	Decidable	Yes	
Rule 17.8	Advisory	Undecidable	Yes	
Rule 18.1	Required	Undecidable	Yes	
Rule 18.2	Required	Undecidable	Yes	
Rule 18.3	Required	Undecidable	Yes	
Rule 18.4	Advisory	Decidable	Yes	
Rule 18.5	Advisory	Decidable	Yes	
Rule 18.6	Required	Undecidable	Yes	
Rule 18.7	Required	Decidable	Yes	
Rule 18.8	Required	Decidable	Yes	

Rule	Category	Decidability	Supported	Notes
Rule 19.1	Mandatory	Undecidable	Yes	Adheres to Technical Corrigendum 1.
Rule 19.2	Advisory	Decidable	Yes	
Rule 20.1	Advisory	Decidable	Yes	
Rule 20.2	Required	Decidable	Yes	
Rule 20.3	Required	Decidable	Yes	
Rule 20.4	Required	Decidable	Yes	
Rule 20.5	Advisory	Decidable	Yes	
Rule 20.6	Required	Decidable	Yes	
Rule 20.7	Required	Decidable	Yes	
Rule 20.8	Required	Decidable	Yes	
Rule 20.9	Required	Decidable	Yes	
Rule 20.10	Advisory	Decidable	Yes	
Rule 20.11	Required	Decidable	Yes	
Rule 20.12	Required	Decidable	Yes	
Rule 20.13	Required	Decidable	Yes	
Rule 20.14	Required	Decidable	Yes	
Rule 21.1	Required	Decidable	Yes	Adheres to Technical Corrigendum 1.
Rule 21.2	Required	Decidable	Yes	Adheres to Technical Corrigendum 1.
Rule 21.3	Required	Decidable	Yes	
Rule 21.4	Required	Decidable	Yes	
Rule 21.5	Required	Decidable	Yes	
Rule 21.6	Required	Decidable	Yes	
Rule 21.7	Required	Decidable	Yes	Adheres to Technical Corrigendum 1.
Rule 21.8	Required	Decidable	Yes	Changed in Amendment 1 (removed "getenv"). Adheres to Technical Corrigendum 1.
Rule 21.9	Required	Decidable	Yes	Adheres to Technical Corrigendum 1.
Rule 21.10	Required	Decidable	Yes	
Rule 21.11	Required	Decidable	Yes	
Rule 21.12	Advisory	Decidable	Yes	

Rule	Category	Decidability	Supported	Notes
Rule 21.13	Mandatory	Undecidable	Yes	New rule in Amendment 1.
Rule 21.14	Required	Undecidable	Yes	New rule in Amendment 1.
Rule 21.15	Required	Decidable	Yes	New rule in Amendment 1.
Rule 21.16	Required	Decidable	Yes	New rule in Amendment 1.
Rule 21.17	Mandatory	Undecidable	Yes	New rule in Amendment 1.
Rule 21.18	Mandatory	Undecidable	Yes	New rule in Amendment 1.
Rule 21.19	Mandatory	Undecidable	Yes	New rule in Amendment 1.
Rule 21.20	Mandatory	Undecidable	Yes	New rule in Amendment 1.
Rule 22.1	Required	Undecidable	Yes	
Rule 22.2	Mandatory	Undecidable	Yes	
Rule 22.3	Required	Undecidable	Yes	
Rule 22.4	Mandatory	Undecidable	Yes	
Rule 22.5	Mandatory	Undecidable	Yes	
Rule 22.6	Mandatory	Undecidable	Yes	
Rule 22.7	Required	Undecidable	Yes	New rule in Amendment 1.
Rule 22.8	Required	Undecidable	Yes	New rule in Amendment 1.
Rule 22.9	Required	Undecidable	Yes	New rule in Amendment 1.
Rule 22.10	Required	Undecidable	Yes	New rule in Amendment 1.

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