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# Achieving MISRA C 2004, 2012 and C++ 2008 Compliance with the Synopsys Software Integrity Portfolio

# Achieving MISRA C 2004, 2012 and C++ 2008 Compliance with the Synopsys Software Integrity Portfolio

## Software is eating the world

Industries that traditionally rely on mechanical, electronic and analog control systems are now increasingly replaced by software-driven systems. The average car is expected to contain 300 million lines of code in the next decade, up from 100 million lines of code in today's cars.

On the other hand, the growth of software introduces the possibility of software defects. Often, defects in these systems manifest themselves physically and tangibly – with life-threatening consequences in the worst scenarios. Perhaps more importantly, malicious actors are now able to 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. With this so-called “software supply chain”, it is useful for every participant to reach consensus on – for example – coding standards, defect reporting structures, and so on.

The confluence of these two factors: increasing complexity in software systems, and the establishment of long software supply chains; creates the demand for new tools.

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 coding standard is widely used in safety critical industries, such as automotive, medical, military, and aerospace. The standard provides a set of best practices for writing C code, facilitating the authorship of safe, secure, and portable code. It supports the C90 language specifications.

MISRA C 2004 was first released in 2004, consisting of 142 rules, of which 122 belong to the “Required” category, the other 20 belonging to the “Advisory” category.

Synopsys Static Analysis (Coverity), covers the entire MISRA C 2004 standard<sup>1</sup>.

	Supported	All	% Coverage
All	131	142	92.3%
Required	115	123	93.5%
Advisory	16	19	84.2%

<sup>1</sup> 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 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 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	

MISRA Rule	Category	Supported	Notes
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 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	

MISRA Rule	Category	Supported	Notes
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 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	

MISRA Rule	Category	Supported	Notes
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 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	

MISRA 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++ coding standard is widely used in safety critical industries, such as automotive, medical, military, and aerospace. The standard provides a set of best practices for writing C++ code, facilitating the authorship of safe, secure, and portable code. It supports the C++ programming language as defined by the C++03 language specification.

MISRA C++ 2008 was first released in June 2008, consisting of 228 rules, of which 198 belong to the “Required” category, the other 18 belonging to the “Advisory” category, and 12 belonging to the ‘Document’ category.

Synopsys Static Analysis (Coverity) covers the full MISRA C++ 2008 standard.<sup>1</sup>

	Supported	All	% Coverage
All	215	228	94.3%
Required	197	198	99.5%
Advisory	18	18	100.0%
Document	0	12	0.0%

<sup>1</sup> 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).

Rule Name	Category	Supported	Notes
Rule 0-1-1	Required	Yes	
Rule 0-1-2	Required	Yes	
Rule 0-1-3	Required	Yes	
Rule 0-1-4	Required	Yes	
Rule 0-1-5	Required	Yes	
Rule 0-1-6	Required	Yes	
Rule 0-1-7	Required	Yes	
Rule 0-1-8	Required	Yes	
Rule 0-1-9	Required	Yes	
Rule 0-1-10	Required	Yes	
Rule 0-1-11	Required	Yes	
Rule 0-1-12	Required	Yes	
Rule 0-2-1	Required	Yes	
Rule 0-3-1	Document	No	Static analysis cannot determine whether the code was written in accordance to a particular development process.
Rule 0-3-2	Required	Yes	
Rule 0-4-1	Document	No	Documentation cannot be programmatically analyzed.
Rule 0-4-2	Document	No	Documentation cannot be programmatically analyzed.
Rule 0-4-3	Document	No	Compiler and library behaviors in regard to floating-point arithmetics are out of scope of static analysis.
Rule 1-0-1	Required	Yes	
Rule 1-0-2	Document	No	Compiler and linker behaviours are out of scope of static analysis.
Rule 1-0-3	Document	No	Documentation cannot be programmatically analyzed.
Rule 2-2-1	Document	No	Documentation cannot be programmatically analyzed.
Rule 2-3-1	Required	Yes	
Rule 2-5-1	Advisory	Yes	

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

Rule Name	Category	Supported	Notes
Rule 14-7-1	Required	Yes	
Rule 14-7-2	Required	Yes	
Rule 14-7-3	Required	Yes	
Rule 14-8-1	Required	Yes	
Rule 14-8-2	Advisory	Yes	
Rule 15-0-1	Document	No	Documentation cannot be programmatically analyzed.
Rule 15-0-2	Advisory	Yes	
Rule 15-0-3	Required	Yes	
Rule 15-1-1	Required	Yes	
Rule 15-1-2	Required	Yes	
Rule 15-1-3	Required	Yes	
Rule 15-3-1	Required	Yes	
Rule 15-3-2	Advisory	Yes	
Rule 15-3-3	Required	Yes	
Rule 15-3-4	Required	Yes	
Rule 15-3-5	Required	Yes	
Rule 15-3-6	Required	Yes	
Rule 15-3-7	Required	Yes	
Rule 15-4-1	Required	Yes	
Rule 15-5-1	Required	Yes	
Rule 15-5-2	Required	Yes	
Rule 15-5-3	Required	Yes	
Rule 16-0-1	Required	Yes	
Rule 16-0-2	Required	Yes	
Rule 16-0-3	Required	Yes	
Rule 16-0-4	Required	Yes	
Rule 16-0-5	Required	Yes	
Rule 16-0-6	Required	Yes	
Rule 16-0-7	Required	Yes	



Rule Name	Category	Supported	Notes
Rule 16-0-8	Required	Yes	
Rule 16-1-1	Required	Yes	
Rule 16-1-2	Required	Yes	
Rule 16-2-1	Required	Yes	
Rule 16-2-2	Required	Yes	
Rule 16-2-3	Required	Yes	
Rule 16-2-4	Required	Yes	
Rule 16-2-5	Advisory	Yes	
Rule 16-2-6	Required	Yes	
Rule 16-3-1	Required	Yes	
Rule 16-3-2	Advisory	Yes	
Rule 16-6-1	Document	No	Documentation cannot be programmatically analyzed.
Rule 17-0-1	Required	Yes	
Rule 17-0-2	Required	Yes	
Rule 17-0-3	Required	Yes	
Rule 17-0-4	Document	No	Static analysis cannot determine compliance of a particular library with MISRA standard, as the source code may not necessarily be available.
Rule 17-0-5	Required	Yes	
Rule 18-0-1	Required	Yes	
Rule 18-0-2	Required	Yes	
Rule 18-0-3	Required	Yes	
Rule 18-0-4	Required	Yes	
Rule 18-0-5	Required	Yes	
Rule 18-2-1	Required	Yes	
Rule 18-4-1	Required	Yes	
Rule 18-7-1	Required	Yes	
Rule 19-3-1	Required	Yes	
Rule 27-0-1	Required	Yes	

## MISRA C 2012

The MISRA C coding standard is widely used in safety critical industries, such as automotive, medical, military, and aerospace. The standard provides a set of best practices for writing C code, facilitating the authorship of safe, secure, and portable code. It supports the C90 and C99 language specifications.

MISRA C 2012 Amendment 1 was released in 2016, consisting of 156 rules and 17 directives for a total of 173 guidelines.

Synopsys Static Analysis (Coverity) covers the entire MISRA C 2012 standard, including Amendment 1<sup>2</sup>.

	Decidable		Undecidable		Subtotal		% 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%

<sup>2</sup>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 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 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 use of MISRA analysis will assist in minimizing run-time 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	
Directive 4.7	Required	Undecidable	Yes	
Directive 4.8	Advisory	Undecidable	Yes	
Directive 4.9	Advisory	Undecidable	Yes	
Directive 4.10	Required	Undecidable	Yes	
Directive 4.11	Required	Undecidable	Yes	
Directive 4.12	Required	Undecidable	Yes	
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 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	
Rule 2.3	Advisory	Decidable	Yes	
Rule 2.4	Advisory	Decidable	Yes	

MISRA Rule	Category	Decidability	Supported	Notes
Rule 2.5	Advisory	Decidable	Yes	
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 <sup>1</sup>	Required	Decidable	Yes	
Rule 5.8	Required	Decidable	Yes	
Rule 5.9	Advisory	Decidable	Yes	
Rule 6.1	Required	Decidable	Yes	
Rule 6.2	Required	Decidable	Yes	
Rule 7.1	Required	Decidable	Yes	
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	
Rule 8.5	Required	Decidable	Yes	
Rule 8.6	Required	Decidable	Yes	
Rule 8.7	Advisory	Decidable	Yes	

MISRA Rule	Category	Decidability	Supported	Notes
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	
Rule 10.2	Required	Decidable	Yes	
Rule 10.3	Required	Decidable	Yes	
Rule 10.4	Required	Decidable	Yes	
Rule 10.5	Advisory	Decidable	Yes	
Rule 10.6	Required	Decidable	Yes	
Rule 10.7	Required	Decidable	Yes	
Rule 10.8	Required	Decidable	Yes	
Rule 11.1	Required	Decidable	Yes	
Rule 11.2	Required	Decidable	Yes	
Rule 11.3	Required	Decidable	Yes	
Rule 11.4	Advisory	Decidable	Yes	
Rule 11.5	Advisory	Decidable	Yes	
Rule 11.6	Required	Decidable	Yes	

MISRA Rule	Category	Decidability	Supported	Notes
Rule 11.7	Required	Decidable	Yes	
Rule 11.8	Required	Decidable	Yes	
Rule 11.9	Required	Decidable	Yes	
Rule 12.1	Advisory	Decidable	Yes	
Rule 12.2	Required	Undecidable	Yes	
Rule 12.3	Advisory	Decidable	Yes	
Rule 12.4	Advisory	Decidable	Yes	
Rule 12.5	Mandatory	Decidable	Yes	New rule in Amendment 1
Rule 13.1	Required	Undecidable	Yes	
Rule 13.2	Required	Undecidable	Yes	
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	
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 15.3	Required	Decidable	Yes	
Rule 15.4	Advisory	Decidable	Yes	
Rule 15.5	Advisory	Decidable	Yes	
Rule 15.6	Required	Decidable	Yes	
Rule 15.7	Required	Decidable	Yes	
Rule 16.1	Required	Decidable	Yes	
Rule 16.2	Required	Decidable	Yes	
Rule 16.3	Required	Decidable	Yes	
Rule 16.4	Required	Decidable	Yes	
Rule 16.5	Required	Decidable	Yes	

MISRA Rule	Category	Decidability	Supported	Notes
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 19.1	Mandatory	Undecidable	Yes	
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	

MISRA Rule	Category	Decidability	Supported	Notes
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	
Rule 21.2	Required	Decidable	Yes	
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	
Rule 21.8	Required	Decidable	Yes	Changed in Amendment 1 (removed "getenv")
Rule 21.9	Required	Decidable	Yes	
Rule 21.10	Required	Decidable	Yes	
Rule 21.11	Required	Decidable	Yes	
Rule 21.12	Advisory	Decidable	Yes	
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	



MISRA Rule	Category	Decidability	Supported	Notes
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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