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Information technology — C# specification suite

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Introduction

C# is a widely used, general-purpose programming language.

Essential components of a C# implementation are described in several individual standards, supplemented by a technical report. The C# Specification Suite is just a collection of those components, which are developed and maintained by Ecma International.

The Suite defined by this specification aggregates these components via normative and informative references to the latest published Ecma International specifications. This has the advantage that an update of the Suite is only needed if there is a change (addition or deletion) in the set of components.

This Ecma Standard was developed by Technical Committee 49 and was adopted by the General Assembly of December 2022.

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C# Specification Suite

1 Scope

This specification defines the C# programming language and its required library. It defines all the necessary components that are needed to implement this Suite. This Suite does not change if one or more components are updated by a new standard edition. The Suite changes only when new components are added to it and/or existing components are removed from it.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ECMA-334, *C# language specification*, https://www.ecma-international.org/publications-and-standards/standards/ecma-334/

ECMA-335, *Common Language Infrastructure (CLI) : Partition IV: Profiles and Libraries*, https://www.ecma-international.org/publications-and-standards/standards/ecma-335/

3 The C# language and library

An implementation of C# consists of the C# programming language and its required library, and shall conform to ECMA-334, and the relevant parts of ECMA-335: Partition IV, respectively.

The following Ecma Standards are part of the current C# Specification Suite:

- ECMA-334, *C# language specification*
- ECMA-335, *Common Language Infrastructure (CLI) : Partition IV: Profiles and Libraries*

3.1 C# language specification

This component defines the syntax and semantics of the C# language and its pre-processing directives; optional features; and a library that shall be available for use by C# programs as they execute.

3.2 C# library specification

This component defines the syntax and semantics of a family of types usable from a C# program. As published, ECMA-335 contains more facilities than are required by a C# implementation. The subset of facilities that are required by C# are specified in the normative annex “Standard library” of ECMA-334.

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Bibliography

[1] ECMA TR/84, *Common Language Infrastructure (CLI) - Information derived from Partition IV XML file*, https://www.ecma-international.org/publications-and-standards/technical-reports/ecma-tr-84/

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