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**Software and systems engineering —  
Software testing —**

Part 5:  
**Keyword-Driven Testing**

*Ingénierie du logiciel et des systèmes — Essais du logiciel —  
Partie 5: Essais axés sur des mots-clés*



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## Foreword

ISO (the International Organization for Standardization) and IEC (the International Electrotechnical Commission) form the specialized system for worldwide standardization. National bodies that are members of ISO or IEC participate in the development of International Standards through technical committees established by the respective organization to deal with particular fields of technical activity. ISO and IEC technical committees collaborate in fields of mutual interest. Other international organizations, governmental and non-governmental, in liaison with ISO and IEC, also take part in the work. In the field of information technology, ISO and IEC have established a joint technical committee, ISO/IEC JTC 1.

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The main task of ISO/IEC JTC 1 is to prepare International Standards. Draft International Standards adopted by the joint technical committee are circulated to national bodies for voting. Publication as an International Standard requires approval by at least 75 % of the national bodies casting a vote.

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ISO/IEC/IEEE 29119-5 was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 7, *Software and systems engineering*, in cooperation with the Software & Systems Engineering Standards Committee of the IEEE Computer Society, under the Partner Standards Development Organization cooperation agreement between ISO and IEEE.

ISO/IEC/IEEE 29119 consists of the following parts, under the general title *Software and systems engineering* — *Software testing*:

- *Part 1: Concepts and definitions*
- *Part 2: Test processes*
- *Part 3: Test documentation*
- *Part 4: Test techniques*
- *Part 5: Keyword-Driven Testing*

## Introduction

The purpose of the ISO/IEC/IEEE 29119 series of software testing standards is to define an internationally-agreed set of standards for software testing that can be used by any organization when managing or performing any form of software testing.

This part of ISO/IEC/IEEE 29119 defines a unified approach for describing test cases in a modular way, which assists with the creation of items like keyword-driven test specifications and test automation frameworks. The term "keyword" refers to the elements which are, once defined, used to compose test cases, such as with building blocks. ISO/IEC/IEEE 29119-5 will explain the main concepts and application of Keyword-Driven Testing. It will also define attributes of frameworks designed to support Keyword-Driven Testing.

The concepts and definitions relating to software testing defined in ISO/IEC/IEEE 29119-1 are also applicable to ISO/IEC/IEEE 29119-5.

The test process model on which the Keyword-Driven Testing framework is based is defined in ISO/IEC/IEEE 29119-2 Test Processes. It comprises test process descriptions that define the software testing processes at the organizational level, test management level and dynamic test level. Supporting informative diagrams describing the processes are also provided in ISO/IEC/IEEE 29119-2. However, ISO/IEC/IEEE 29119-5 describes a specific implementation of the test design and implementation processes of ISO/IEC/IEEE 29119-2; in particular TD4 (Derive Test Cases), TD5 (Assemble Test Sets) and TD6 (Derive Test Procedures) as here applied to Keyword-Driven Testing.

The templates and examples of test documentation as defined in ISO/IEC/IEEE 29119-3 are also applicable to ISO/IEC/IEEE 29119-5.

Software test design techniques that can be used during test design are defined in ISO/IEC/IEEE 29119-4 Test Techniques. The application of ISO/IEC/IEEE 29119-4 is assumed when designing test cases that are then described by keywords according to ISO/IEC/IEEE 29119-5.

This part of ISO/IEC/IEEE 29119-5 has the following structure:

- terms and definitions can be found in clause 4
- an introduction to Keyword-Driven Testing is given in clause 5
- the application of Keyword-Driven Testing is explained in clause 6
- frameworks for Keyword-Driven Testing are described in clause 7
- data interchange is covered in clause 8
- Annex A states naming conventions for keywords
- Annex B names benefits that can be achieved with Keyword-Driven Testing
- Annex C gives advice on how interested parties wanting to use Keyword-Driven Testing can start
- Annex D describes roles that can be used in Keyword-Driven Testing
- Annex E contains examples of basic keywords that can be used to create test cases
- Annex F contains examples for keyword test cases