

Second edition  
2018-07

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## Information technology — Common Logic (CL) — A framework for a family of logic-based languages

*Technologies de l'information — Logique Commune (CL) — Cadre  
pour une famille des langages logique-basés*



Reference number  
ISO/IEC 24707:2018(E)

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Published in Switzerland

This is a preview of "ISO/IEC 24707:2018". [Click here to purchase the full version from the ANSI store.](#)

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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.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see [www.iso.org/directives](http://www.iso.org/directives)).

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This document was prepared by Technical Committee ISO/IEC JTC 1, *Information technology*, SC 32, *Data management and interchange*.

This second edition cancels and replaces the first edition (ISO/IEC 24707:2007), which has been technically revised.

The main changes compared to the previous edition are as follows:

- the list of syntactic errors that have already been identified in the Defect Report has been fixed;
- the XML syntax in [Annex C](#) has been corrected and completed;
- a more general approach to annotation of CL-texts has been made;
- semantics has been modified to allow the existence of definitional extensions in CL;
- support for circular imports;
- semantics of CL-module have been clarified;
- clarification of the distinction between segregated and non-segregated dialects;
- clarification of conformance conditions has been made.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at [www.iso.org/members.html](http://www.iso.org/members.html).

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## Introduction

Common Logic is a logic framework intended for information exchange and transmission. The framework allows for a variety of different syntactic forms, called dialects, all translatable by a semantics-preserving transformation to a common XML-based syntax.

Common Logic has some novel features, chief among them being a syntax which permits “higher-order” constructions, such as quantification over classes or relations while preserving a first-order model theory, and a semantics which allows theories to describe intentional entities such as classes or properties. It also has provision for the use of datatypes and for naming, importing and transmitting content on the World Wide Web using XML.