
**Language resource management —
Controlled natural language (CNL) —**

**Part 1:
Basic concepts and principles**

*Gestion des ressources linguistiques — Langage naturel contrôlé
(CNL) —*

Partie 1: Notions de base et principes



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Published in Switzerland

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

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).

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For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: [Foreword - Supplementary information](#)

The committee responsible for this document is ISO/TC 37, *Terminology and other language and content resources*, Subcommittee SC 4, *Language resource management*.

ISO 24620 consists of the following parts, under the general title *Language resource management — Controlled natural language (CNL)*:

— *Part 1: Basic concepts and principles*

Introduction

The long history of the study of controlled natural language (CNL) has proved its effectiveness especially in technical documentation, technical communication, and business communication. In time, CNL has come to be applied in different ways in such fields as information management, librarianship, terminology management, and legal documents. Its commercial impact was established in the 1990s due to its effectiveness in information and communication technology applications like machine translation and mobile communication. Moreover, 'text simplification', a major task of CNL, promotes efficient communication with regard to all kinds of language use on the web. An example of this is the simplified English Wikipedia.

This part of ISO 24620 aims both to define major concepts related to CNL and to outline the scope of CNL and its various applications in relation to language resource management. These include the following:

- a) the pre-editing of texts for CNL in preparation for machine translation;
- b) the development of new or the re-use of existing controlled vocabularies for CNL;
- c) the structuring and harmonization of content for content management;
- d) technical writing including the formulation of standards;
- e) facilitating communication with and for persons with disabilities (PWD), for instance, in ambient assisted living (AAL) or augmentative and alternative communication (AAC).

In this connection, special attention is given to aspects of interoperability: from technical interoperability through semantic interoperability to content interoperability. As a Technical Specification (TS), this part of ISO 24620 identifies the following:

- the environments of CNL used for the purposes and applications of all kinds (e.g. computer-assisted technical writing);
- the relationships to language resource management and related systems;
- the potential for new applications (e.g. in the processes, whether manual or automatic, of knowledge acquisition and knowledge fusion based on and linked to the web).

This part of ISO 24620 is the first in a planned series of International Standards on CNL. Subsequent parts will focus on issues specific to particular viewpoints and/or applications such as particular CNLs, CNL interfaces, the implementation of CNLs, and evaluation techniques for CNL.

Language resource management — Controlled natural language (CNL) —

Part 1: Basic concepts and principles

1 Scope

As part of a drive to provide international standards for language resource management, this part of ISO 24620 on controlled natural language (CNL) sets out the principles of CNL and its utilization together with the relevant supporting technology. However, this part of ISO 24620 also aims to introduce a general view of CNL with its objectives and characteristics and provide a scheme for classifying a range of CNLs. This part of ISO 24620 additionally specifies certain normalizing principles of CNLs that control the use of natural languages in particular domains and are also oriented towards areas of practical application. These areas include public administrative communications, search optimization, and the management of automatic question-answering systems, but the current version of this part of ISO 24620 does not address any issue involving these applications directly.

2 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

2.1

artificial language

language (2.11) that has been specifically devised for some applications

Note 1 to entry: The grammar of an artificial language is formulated systematically for some specific purposes of its used in practical applications especially in the area of human or human-machine communications.

2.2

authoring

writing a document such as a report, manual, article, or book

2.3

comprehension

understanding the *content* (2.4) of a document

2.4

content

information content

information contained in or conveyed by a *language* (2.11), which can be in a written, spoken, or some other forms such as images

2.5

content management

<language resource management> controlling the *content* (2.4) of a *text* (2.21) or the media in general while analysing or revising it

Note 1 to entry: This includes version control of revised documents, contents in versions of similar documents, and the management of relations between items in a document.