# INTERNATIONAL STANDARD



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# Language resource management — Syntactic annotation framework (SynAF)

Gestion de ressources langagières — Cadre d'annotation syntaxique (SynAF)



Reference number ISO 24615:2010(E)

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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 Haison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 24615 was prepared by Technical Committee ISO/TC 37, *Terminology and other language and content resources*, Subcommittee SC 4, *Language resource management*, in collaboration with the European eContent Project "LIRICS" (Linguistic Infrastructore for Interoperable Resources and Systems), under the contract e-Content-22236-LIRICS.

ISO 24615 is designed to coordinate closely with ISO 24612, Language resource management — Linguistic annotation framework (LAF), ISO 24613:2008, Language resource management — Lexical markup framework (LMF), and ISO 24611, Language resource management — Morpho-syntactic annotation framework.

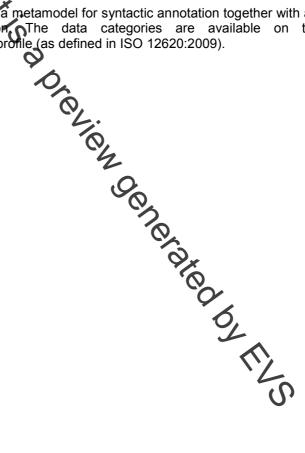
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# Introduction

This International Standard is based on numerous projects and pre-standardisation activities that have taken place in the last few years (see Abeillé, 2001<sup>[9]</sup>), to provide reference models and formats for the representation of syntactic information, whether as the output of a syntactic parser, or as annotations of language resources (treebanks). For several years, the Penn Treebank initiative has served as a *de facto* standard for treebanking, but more recent works e.g. the Negra/Tiger initiative (see: <u>http://www.ims.uni-stuttgart.de/projekte/TIGER/TIGERCorpus/</u>) in Germany or the ISST initiative in Italy [see Montemagni (2003)<sup>[18]</sup>] demonstrate the viability of a more coherent framework that can account for both (hierarchical) constituency and dependency phenomena in syntactic annotation.

The eContent project "LINES", has been seminal in gathering a group of experts, who initiated the ISO 24615 (SynAF) project. While preparing SynAF, this group confirmed that existing initiatives indeed share a common data model that offers a good basis for the SynAF metamodel (see the study made in Deliverable D.3.1 "Evaluation of initiatives for morpho-syntactic and syntactic annotation" of the EU project LIRICS, available at <u>http://lirics.loria.fr/doc\_pub/Del3\_0V2.pdf</u>).

This International Standard proposes a metamodel for syntactic annotation together with a list of relevant data categories for syntactic annotation. The data categories are available on the ISOCat server (<u>http://www.isocat.org/</u>) in the syntax profile (as defined in ISO 12620:2009).



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# Language resource management — Syntactic annotation framework (SynAF)

# 1 Scope

This International Standard describes the syntactic annotation framework (SynAF), a high level model for representing the syntactic annotation of linguistic data, with the objective of supporting interoperability across language resources or language processing components. This International Standard is complementary and closely related to ISO 24611 (MAF, morpho-syntactic annotation framework) and provides a metamodel for syntactic representations as well as reference data categories for representing both constituency and dependency information in sentences or other comparable utterances and segments.

# 2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applices For undated references, the latest edition of the referenced document (including any amendments) applices.

ISO 1087-1:2000, Terminology work — Vocabulary — Part 1: Theory and application

ISO 1087-2:2000, Terminology work — Vocabulary Part 2: Computer applications

ISO 12620:2009, Terminology and other language and content resources — Specification of data categories and management of a Data Category Registry for language resources

ISO 24611, Language resource management — Morpho-syntactic annotation framework

## 3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 1087-1, ISO 1087-2, ISO 12620:2009, ISO 24611 and the following apply.

### 3.1

adjunct

non-essential element associated with a verb as opposed to syntactic arguments (3.19

NOTE Adverbs are possible adjuncts for a sentence.

### 3.2

chunk

non-recursive constituent (3.4)

### 3.3

### clause

group of phrases (3.14), usually containing a predicate

NOTE A clause can be either a **main clause** (3.10) or a **subordinate clause** (3.17). In languages distinguishing finiteness, clauses whose predicate is a verb can be either finite or non-finite, depending on the form of the verb. A main clause alone can build a complete **sentence** (3.15). In the SynAF model, a clause is a special case of a **constituent** (3.4).