SLOVENSKI STANDARD
SIST EN ISO 12381:2019

01-november-2019

Nadomešča:
SIST EN 12381:2005

Zdravstvena informatika - Časovni standardi za vprašanja, specifična za zdravstveno varstvo (ISO 12381:2019)

Health informatics - Time standards for healthcare specific problems (ISO 12381:2019)

Medizinische Informatik - Zeitnormen für spezifische Probleme im Gesundheitswesen (ISO 12381:2019)

Informatique de santé - Représentation du temps dans le domaine de la santé (ISO 12381:2019)

Ta slovenski standard je istoveten z: EN ISO 12381:2019

ICS:

35.240.80	Uporabniške rešitve IT v zdravstveni tehniki	IT applications in health care technology

SIST EN ISO 12381:2019   **en,fr,de**

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EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN ISO 12381

September 2019

ICS 35.240.80

Supersedes EN 12381:2005

English Version

Health informatics - Explicit time-related expressions for healthcare-specific problems (ISO 12381:2019)

Informatique de santé - Expressions relatives au temps explicites utilisées dans le domaine de la santé (ISO 12381:2019)

Medizinische Informatik - Zeitnormen für spezifische Probleme im Gesundheitswesen (ISO 12381:2019)

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

EN ISO 12381:2019 (E)

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European foreword

This document (EN ISO 12381:2019) has been prepared by Technical Committee ISO/TC 215 "Health informatics" in collaboration with Technical Committee CEN/TC 251 "Health informatics" the secretariat of which is held by NEN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by March 2020, and conflicting national standards shall be withdrawn at the latest by March 2020.

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INTERNATIONAL STANDARD

ISO
12381

First edition
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Health informatics — Explicit time-related expressions for healthcare-specific problems

Informatique de santé — Expressions relatives au temps explicites utilisées dans le domaine de la santé

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ISO 12381:2019(E)

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 of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see www.iso .org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 215, *Health informatics*.

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.

Introduction

Time is an important variable in healthcare, and standards are needed about how to represent information with explicit references to time. This document is a first contribution to this harmonization process, focusing on "representation" and "explicit reference".

Indeed, a system for time-standards should have as a minimum requirement the capacity to order temporal facts (situations, events, episodes) in three major ways, independent of any specific ontology of time itself:

— by relating situations to a calendar;

— by relating situations to "reference" situations;

— by relating events together in "before- and after-" chains.

The main reason for this threefold organization is that our everyday temporal discourse contains a variety of expressions that can only be regimented into a uniform style of analysis with a certain artificiality.

The purpose of this document is to enhance, in a perspective of machine-machine and person-machine communication, the generation of statements that are guaranteed to be understood unambiguously with respect to the time-related expressions that are embedded within them.

The purpose of this document is not to develop a full-blown temporal logic, but a standardized way of representing time-related expressions, such that all kinds of questions about the temporal organization of situations can be answered on the basis of the information available. Nor is it the intention of the framework presented here to provide a means to interpret the information in its original format. Interpretation of the source information is the task of the provider of information itself. The framework presented in this document allows information providers to express their time-related information in such a way that the intended meaning can be unambiguously understood by a receiver.

This of course requires the use of a "restricted", regimented model or language, allowing the disambiguation of many time-related expressions uttered in natural language. The model (language) presented in this document is restricted enough to allow such disambiguation for time-related expressions in "traditional" medical language but is not expressive enough to account for all time related linguistic phenomena that can be encountered in natural language.

This document provides representational tools for "explicit" time-related information. It does not allow (nor encourage) the ad hoc interpretation of implicit temporal information. In an expression such as "diabetes since childhood", "since childhood" is an explicit temporal reference for the diabetes, but the implicit information what "childhood" might mean (e.g. starting at the age of 2?), is not addressed. However, the framework presented in this document has enough expressive power to allow a specific provider of information to state explicitly what his or her understanding is of "childhood" is.

This document describes some conformance characteristics by means of which developers of health care information systems can label specific modules of their systems as to the degree they are compliant with the document. Although the framework itself does not deal with temporal reasoning, the conformance characteristics can be used to evaluate to what level temporal reasoning is possible with the information collected in a given system.

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