TECHNICAL REPORT

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English Version

Health informatics - Vocabulary - Maintenance procedure for a web-based terms and concepts database

Informatique de santé - Vocabulaire Informatique Médical -
Procédure de maintenance

Medizinische Informatik - Vokabular - Verfahren zur Pflege
von webbasierten Datenbanken für Benennungen und
Begriffe

This Technical Report was approved by CEN on 8 August 2005. It has been drawn up by the Technical Committee CEN/TC 251.

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Foreword

This Technical Report (CEN/TR 15212:2006) has been prepared by Technical Committee CEN/TC 251 "Health Informatics", the secretariat of which is held by NEN.

This document supersedes ENV 12017:1997.

Introduction

The need for a coherent and precise terminology in health informatics is obvious. The overall problem of supplying concept systems and reference terminologies with international scope for all of healthcare information is gigantic but is approached by different organisations and strategies where formal standardization aims for a facilitating role.

This document addresses the much more limited problem of the terminology of informatics and in particular the terminology used in health informatics standards. Vocabulary harmonisation across standards in the field is an important quality requirement and with the growing complexity of health informatics, easy to use tools are needed to manage this. We have to accept that in some aspects terminology and definitions of the associated concepts are developing over time. It is therefore important for the vocabulary to be continuously updated with new terms and unambiguous definitions with references to the normative documents where they are approved.

In ENV 12017 a procedure was described in which a published standard would regularly be issued with the most recent terminology. Given the fast development and requirement for easy access, CEN/TC 251 decided in March 2000 to instead target a freely available database with web access, which would present the terms and definitions of the CEN/TC 251 standards. The intended capacity to present concept models graphically when available, together with the traditional verbal definitions, makes it extra valuable.

1 Scope

This document describes the general requirements on a terms and concepts database. This document also proposes a maintenance procedure for CEN/TC 251, the content, structure and user interface to a web-based terms- and concepts database that will compile the defined concepts with their preferred terms and definitions from the standards developed by CEN/TC 251. These are terms from the health informatics field and not all terms and concepts used in healthcare.

It also describes an example of an implementation and ends with a proposal for CEN/TC 251 for the establishment and maintenance of such a terms and concepts database.

2 Abbreviations

T&C   Terms and concepts

3 Strategy for defining a Terms and Concepts database

Definitions of concepts reached by graphic modelling are in some situations preferable to text-only definitions. By concept modelling, the relation to other concepts can become clearer and possible overlaps and circular definitions become overt. In many CEN/TC 251 standards, graphic models are used to define concepts, especially when full information models are presented but there are also many concepts in the existing standards that are defined with verbal definitions only. CEN/TC 251 should seek to develop concept models in the future work.

The database should therefore have the capacity to present the definitions both verbally and graphically.

This document starts with an introduction to graphic modelling where general requirements on different types of models are described.

However, terms as identifiers of concepts are of course also essential. By mapping preferred terms and synonyms to concepts defined by their links to surrounding concepts, it is possible to create a dictionary. The synonyms can also be national terms. In the multilingual Europe this would be of special interest. The database can also hold synonyms intended for technical use in ICT-systems such as XML-tags in addition to terms intended for human reading.

If the field of usage of a term mapped to a certain concept is specified, it is possible to use the same term in some other specified context mapped to another concept. If implemented in the database, handling of homonyms and versions is made possible. By indicating the status and source for terms and concepts, inclusion of normative information from other standardisation bodies than CEN is made possible.

The intended content of terms and concepts will be collected from existing normative documents with reference to it's source and domain.

A meta-model for the relations in between terms and concepts and the usage and source of terms is presented in Annex B.

Functional demands on a web-based, graphical terms- and concepts database has been described by STG (Swedish General Standards Group) within SIS – Swedish Standards