ISO

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION

ISO RECOMMENDATION

R 860

INTERNATIONAL UNIFICATION

iTeh STANDARD PREVIEW
OF CONCEPTS AND TERMS
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BRIEF HISTORY

The ISO Recommendation R 860, *International unification of concepts and terms,* was drawn up by Technical Committee ISO/TC 37, *Terminology (Principles and co-ordination),* the Secretariat of which is held by the Österreichisches Normungsinstitut (ON).

Work on this question by the Technical Committee began in 1952 and led, in 1966, to the adoption of a Draft ISO Recommendation.

In May 1967, this Draft ISO Recommendation (No. 1189) was circulated to all the ISO Member Bodies for enquiry. It was approved, subject to a few modifications of an editorial nature, by the following Member Bodies :

Argentina	Greece	Romania
Australia	India	Spain
Austria	Israel	Switzerland
Chile	Italy	Turkey
Czechoslovakia	Netherlands	U.A.R.
France	Poland	
Germany	Portugal	

Three Member Bodies opposed the approval of the Draft :

Ireland
United Kingdom
U.S.A.

The Draft ISO Recommendation was then submitted by correspondence to the ISO Council, which decided, in October 1968, to accept it as an ISO RECOMMENDATION.

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FOREWORD

Co-operation and communication between experts engaged in all branches of science and technology are assuming ever-increasing importance as essential conditions for progress, both within each country and between countries. For this exchange to be successful, technical terms should have the same meaning for everyone who uses them. This goal can be achieved only if there is general agreement on the meaning of these terms. Hence the importance of technical vocabularies, in which concepts and terms, as well as their definitions, are standardized (terminological standards). It is just such standards which aid to assure mutual understanding.

These vocabularies are prepared by the National Standards Associations and by the Technical Committees of ISO. During the work on terminology carried out by these bodies it quickly became apparent that it was necessary to have directives applicable to any field of knowledge and that it was possible to establish them.

Accordingly, ISO set up a Technical Committee, known as ISO/TC 37, *Terminology (Principles and co-ordination)*, with the mission of finding out and formulating general principles on terminology and terminological lexicography.

The ISO Recommendations prepared by this Technical Committee deal with questions that fall under the following four classes :

    1. Vocabulary of terminology;

    2. Procedure for producing national or international standardized vocabularies;

    3. National and international standardization of concepts, terms and their definitions : principles for their establishment and criteria of value;

    4. Layout of monolingual and multilingual vocabularies, including lexicographical symbols.

The ISO Recommendation included in class 2 deals with guidance in the organization of the work, while the other classes are concerned with technical details.

The following ISO Recommendations have been or will be issued :

Class 1

ISO/R . . .,*   *Vocabulary of terminology*

Class 2

ISO/R 919,   *Guide for the preparation of classified vocabularies (Example of method)*

Class 3

ISO/R 704,   *Naming principles*
ISO/R 860,   *International unification of concepts and terms*

Class 4

ISO/R . . .,**   *Layout of multilingual classified vocabularies*

ISO/R . . .,   *Layout of monoligual classified vocabularies*

ISO/R . . .,   *Lexicographical symbols*

ISO/R 639,   *Symbols for languages, countries and authorities*

The present ISO Recommendation is a supplement to ISO Recommendation R/704, *Naming principles*, which contains principles applicable to any particular language or languages.

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* At present Draft ISO Recommendation No. 781.

** At present Draft ISO Recommendation No. 1659.

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INTERNATIONAL UNIFICATION

OF CONCEPTS AND TERMS

INTRODUCTION

The interests of international understanding require that national terminologies should as far as possible be unified.

The purpose of this ISO Recommendation is to show the advantages, possibilites and limits of the international unification of concepts and terms. It will be useful to persons concerned with the selection and coining of terms, especially during the preparation of standardized glossaries and vocabularies.

Although the rules suggested in this ISO Recommendation are applicable for general use, it is possible that some of its particulars cannot always be accepted for use in non-European languages.

The international unification (internationalization) should concern five elements of terminologies. These are

(1) Concepts and systems of concepts.

(2) Description of concepts, i.e. definitions and illustrations.

(3) The external form of terms, especially the graphic form.

(4) The internal form, i.e. the literal meaning of complex terms and of transferred terms.

(5) The description of terms, i.e. the characters of writing.

1. INTERNATIONALIZATION OF CONCEPTS AND SYSTEMS OF CONCEPTS

1.1 Concepts

The concepts should be unified. The best way for the unification of concepts is the establishment of unified systems of concepts (see clause 1.2).

It is of primary importance to unify the meanings of such terms, the external or internal form of which is equal or similar within the compared languages. There is a great danger of confusion in such cases.

Examples :   (a)   *Pseudo-international literal meaning.* The terms F* *machine-outil* D *Werkzeugmaschine* include all machines for cutting or forming any materials. The term E *machine-tool*, however, which has the same literal meaning (see clause 4.1) as the term F *machine-outil* and is generally equated to it, in reality designates a specific concept, i.e. only machines for cutting metals. By such differences misunderstandings may easily arise (pseudo-international terms).

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*   The letters D, E, F, etc. are symbols for the languages German, English, French etc. (see ISO Recommendation R 639, *Symbols for languages, countries and authorities*).

(b) *Pseudo-international form.* The electrotechnical terms E *period* F *période* do not have exactly the same meaning as D *Periode*, as can be seen by the following comparison :

	D	*Periodendauer*	D	*Periode*
	Sv	*periodtid*	Sv	*period*
=	E	*period*	= E	*cycle*
	F	*période*	F	*cycle*
	IS	*periodo*	IS	*ciclo*

(c) *True international form.* The introduction of the international term *metre* would not have had any advantage as long as the unit of length was not standardized on an international basis.

1.2 Systems of concepts

Systems of concepts, i.e. classifications, should be unified.

Examples : (a) Comparing the names of colours within several languages it is to be noted that for some of them exact equivalents are missing in one or another language. The reason for this is difference of the subdivision of the spectrum in the various languages.

(b) Uniform correspondence between national terms designating different types of operating conditions, protection and cooling of electric machines will remain unattainable until the classification of these concepts has been unified internationally.

2. INTERNATIONALIZATION OF THE DESCRIPTION OF CONCEPTS

2.1 Definitions

Wording of definitions should be unified.

Example : In the Vocabulary of the International Electrotechnical Commission (IEC), care is taken not only of the effective identity of the meanings of coordinated national terms, but also of the establishment of official definitions (in English and French). Translations of such standard definitions should be introduced progressively into national standards.

The introductions, into a particular country, of definitions fixed by an international convention should not be made without previous critical examination. In fact international definitions have often been established on a basis corresponding to the particular use of certain other countries (see clause 1.2).

2.2 Illustrations

If illustrations are used for the presentation of standardized concepts and terms, these special illustrations are to be unified.

Examples : (a) In so far as the national norms are derived from Recommendations of ISA, ISO or IEC, illustrations also are generally transmitted with the standardized terms and concepts (e.g. illustrations for the concepts of fits). This is all the more desirable, since most illustrations only represent special cases of the given concept (i.e. specific concepts).

(b) In the multilingual defining vocabulary of machine tool terms prepared for the Economic Commission for Europe (ECE), most illustrations have been taken from national standards.

3. INTERNATIONALIZATION OF THE EXTERNAL FORM OF TERMS

3.1 Origin and value of international forms

3.1.1 *Origin of international forms.* Two forms, graphic or phonetic, are etymologically identical, if they come from the same basic form.

A national form is at the same time i n t e r n a t i o n a l, if there are in several other languages forms etymologically identical with it; especially if all these forms are similar and if the languages belong to different families.

There are four c a t e g o r i e s of international forms. These are :

(1) *Pure Latin (or Greek) words* (see clauses 3.3.1, 3.4.1).

Example : *omnibus; vide*

(2) *National "Latin type" words.* The roots of these words are Latin (or Greek), without popular modifications. Their endings have a national form, hence differ from language to language (see clause 3.3.2). The suffixes, which many of these words contain, are Latin (or Greek) either unmodified (see clause 3.4.1) or assimilated to each national language (see clause 3.4.2). Most "Latin type" derivatives were formed a long time after the classic epoch.

Example : From the Latin word *caput, capitis* have been derived the following Latin type terms : EFS *capit/al* (adj.) I *capit/ale* D *kapit/al* R /*kapit/al/nyj*/; E *capit/al/ism* F *capit/al/isme* IS *capit/al/ismo* D *Kapit/al/ismus* R /*kapit/al/izm*/.

(3) *Ethnic words internationally accepted.* These are words borrowed from a language other than Latin (or Greek) to which they are assimilated.

Examples : (a) The Latin word *caput* has regularly changed into French taking the form *chief,* and afterwards *chef.* These forms were adopted by the English language (*chief*), by German (*Chef*), by Spanish (*jefe*) and by Russian (/*šef*/).

(b) The word FIS *starter* R /*starter*/ D *Starter* is borrowed from English (*starter*).

(c) The word EF *robot* D *Roboter* is borrowed from Czech.

(d) The transcription of the Russian term /*sputnik*/ (see clause 3.2.4 (1)) provided the word E *sputnik* F *spoutnik* D *Sputnik.*

(4) *Popular variants from ancient roots.* There is, for ethnic words, also another kind of internationality, which, however, is more restricted.

This occurs when several modern languages have inherited the same ancient root, each assimilating it in a different manner, by popular evolution. This is found particularly among Roman variants of Latin roots. For this kind of internationality the degree of resemblance (see clause 3.2.1) is smaller and the languages generally belong to only one family.

Examples : See clauses 3.1.5 example (*b*) and 3.2.2 example (*a*).

3.1.2 *Importance of international forms.* The importance of international forms lies in the fact that they can be immediately understood by persons having no knowledge of foreign languages. This however depends on the condition that such international forms have the same meaning in the different languages (see, however, clause 1.1).