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Postalische Dienstleistungen - Adressdatenbanken - Teil 1: Bestandteile der postalischen Anschrift (ISO/DIS 19160-4:2016)

Adressage - Partie 4: Composants et langages des modèles d'adresses postales internationales (ISO/DIS 19160-4:2016)

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*Adressage —**Partie 4: Composants et langages des modèles d'adresses postales internationales*

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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).

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. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

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 211, Geographic information/Geomatics, and is based on the standard S42 Part A version 7, of the Universal Postal Union (UPU). ISO 19160-4 is being developed with the UPU and is intended to be adopted by CEN as a replacement for EN 14142-1.

ISO 19160 consists of the following parts under the general title *Addressing*:

- *Part 1: Conceptual model*
- *Part 4: International postal address components and template languages*

The following parts are under preparation:

- *Part 5: Address rendering for purposes other than mail*

The following parts are planned:

- *Part 2: Good practices for address assignment schemes*
- *Part 3: Quality management for address data*

Introduction

Postal service provides letter, package and parcel **delivery** on a global and universal basis, without the need for mailers and recipients to enter into explicit service contracts. **Postal addresses**, which combine private recipient information with publicly known **delivery point** data, provide the mechanism through which **mailers** specify the intended recipient and the means by which the postal operator can fulfil its delivery commitment.

Traditionally, postal operators have been highly flexible with regard to the manner in which postal items can be addressed: any form and content of address was acceptable as long as it permitted sufficiently unambiguous determination of the delivery point. Even today, many posts pride themselves on their ability, using staff intelligence and local knowledge, to deliver postal items carrying incomplete or unusual address representations.

However, increasing volumes and labour cost rates long ago reached the point at which automation became not only economic, but essential. As a result, it has become more and more vital to ensure that the vast majority of postal items are addressed in a way which can be processed automatically, without risk of misinterpretation.

Today, the vast majority of postal items carry printed addresses which are extracted from computer databases. Such databases need to be maintained in the face of population mobility, creation and retirement of **delivery points** and changes in their specification, such as renaming of streets, renumbering of properties, etc. Moreover, there is a growing need for validation of addresses in e-commerce and tendency for organizations to exchange or trade address data and for organizations in one country to hold address data of organizations and individuals in other countries, which might use different approaches rendering of postal addresses.

Addresses can be rendered according to rules that differ from country to country or from one mailing event (a batch of mail, e.g. letters or monthly statements, sent by a mailer at one time) to another. This part of ISO 19160 does not impose any obligation on countries or mailers on how addresses shall be rendered but provides a language to express rendering rules recommended by postal operators for mailing purposes.

Templates specified according to this part of ISO 19160 may be used to exchange information about address rendering rules on international cross border mail and domestic mail. This facilitates automated processing of mail and international e-commerce deliveries.

The intended readers of this part of ISO 19160 include designers and developers of computer systems that process global postal address data including postal address rendering, those who formulate and implement international addressing policies and anyone seeking to reduce errors in postal addresses rendering.

The preparatory work for this project is described in *Review summary of the ISO 19160 stage zero project* (2011) and recommended five projects with the following titles:

- *Addressing – Conceptual model*
- *Addressing – Good practices for address assignment schemes*
- *Addressing – Quality management for address data*

- *Addressing – International postal address components and template language*
- *Addressing – Address rendering for purposes other than mail*

This part of ISO 19160 implements the fourth of these recommendations, and focuses solely on addresses for postal purposes. Addresses for other purposes are described in other parts of ISO 19160.

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Addressing — Part 4: International postal address components and template language

1 Scope

This part of ISO 19160 defines key terms for postal addressing, postal address components and constraints on their use.

Specifically, this part of ISO 19160 defines postal address components organized into three hierarchical levels:

- **elements**, such as organization name or postcode, which have well-defined conceptual meaning and are not themselves made up of subordinate components, though they may be sub-divided for technical purpose;
- **constructs**, such as organization identification, which group elements into units form a logical portion of a postal address;
- **segments**, such as addressee specification, which group related postal address constructs and/or postal address elements into units with a specific defined function.

This part of ISO 19160 also defines a mechanism for creation of **sub-elements**, which correspond to either sub-divisions of element content, such as **door type** or **door indicator**, or to multiple occurrences and locations of elements in an address, such as levels of administrative regions.

This part of ISO 19160 does not specify the length or value range of components.

Moreover, this part of ISO 19160 defines **the codes** to identify elements and sub-elements.

Further this part of ISO 19160 specifies postal address **rendering rules**. This includes identification and ordering of output lines in a rendered address, conditions for selection of candidate lines, the order and concatenation of postal address components, required and optional components, parameters to contextualize address for rendering, and the formatting of the components, subject to constraints on the space available for that task. Postal address rendering rules are represented in this part of ISO 19160 as a **postal address template**.

Finally this part of ISO 19160 defines language suitable for computer processing to formally express **postal address templates**.

2 Conformance

2.1 Composition

The abstract test suite for the purposes of conformance testing is in Annex A. Any postal address for a specific domain (e.g. country or region) for which conformance to this class is claimed shall pass the requirements described in the abstract test suite in A.2.

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2.2 U-code

A U-code (postal address element code, see Clause 7) assigned to an element or sub-element for which conformance with this class is claimed shall pass the requirements described in the abstract test suite in A.3.

2.3 Rendering of postal address

A rendering of postal address for which conformance to this class is claimed shall pass the requirements described in the abstract test suite in A.5.

2.4 PATDL template

Any PATDL template for which conformance to this class is claimed shall pass the requirements described in the abstract test suite in A.4.

3 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 639-1, *Codes for the representation of names of languages – Part 1: Alpha-2 code*

ISO 3166-1, *Codes for the representation of names of countries and their subdivisions – Part 1: Country code*

ISO 15924, *Codes for the representation of names of scripts*

ISO 19160-1, *Addressing - Part 1: Conceptual model*

4 Terms and definitions

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

4.1 address

structured information that allows the unambiguous determination of an object for purposes of identification and location

[SOURCE: ISO 19160-1:2015, 4.1]

4.2 addressable object

object that may be assigned an *address* (4.1)

[SOURCE: ISO 19160-1:2015, 4.2]

4.3 addressee

party (4.11) who is the ultimate recipient of a *delivery* (4.4) item or service

Note 1 to entry: The addressee may be explicitly defined as part of the *postal address* (4.12), or may be implicit. For example, in certain countries, omission of addressee information is taken as implying that delivery is to be to an individual or legal entity having legal access to the *delivery point* (4.6).

Note 2 to entry: Mr. or Mrs. Smith specifies that the addressee is either of two individuals, whilst Mr. Jones and Mrs. Smith denotes that the addressee is a group of two individuals. See also role descriptor.

Note 3 to entry: The use made by the *postal operator* (4.24) of addressee and *mailee* (4.9) data might be dependent on the postal service applicable to the *postal item* (4.23). For some services, such as registered mail, the postal operator's responsibility might include ensuring that the addressee, or a duly authorised representative, acknowledges receipt of the postal item. In other cases, addressee data could be purely informative or used by the postal operator only for consistency checking and/or for the activation of forwarding services. In still other cases, it might be used for sorting or sequencing purposes prior to delivery (e.g. in the case of business mail being pre-sequenced by department or individual company official).

Note 4 to entry: In some countries, the addressee may be an abstraction such as "Postal Customer".

4.4

delivery

<postal> process in which a *postal item* (4.23) leaves the responsibility of the *postal operator* (4.24) through being handed over to, or left for collection by, the *addressee* (4.3), the *mailee* (4.9) or an authorised representative, or deposited in a private letter box accessible to one or other of these

Note 1 to entry: Delivery does not always imply receipt by the addressee or mailee.

4.5

delivery address

<postal> *postal address* (4.12) which the *postal operator* (4.24) is requested to use to deliver the *postal item* (4.23)

Note 1 to entry: In the normal case, the delivery address is the same as the postal address specified by the *mailer* (4.10).

Note 2 to entry: The delivery address may in certain circumstances, e.g. unaddressed mail, not actually be represented on the postal item. In this case, the delivery address is determined by the postal operator in accordance with an agreement between the operator and the mailer.

Note 3 to entry: The postal item might not actually be delivered to the requested delivery address. For example, in the case of forwarding, *delivery* (4.4) takes place at the *forwarding address* (4.7).

4.6

delivery point

<postal> physical location recognised by a *postal operator* (4.24) as a valid location at which *delivery* (4.4) may occur

4.7

forwarding address

postal address (4.12) which the *postal operator* (4.24) is requested to use to deliver the *postal item* (4.23), in place of the original *delivery address* (4.5)

Note 1 to entry: Not all postal items can be forwarded, as for some postal services the *mailer* (4.10) might require the return of the postal item if it cannot be delivered at the delivery address. See *return address* (4.28).

Note 2 to entry: Forwarding addresses can be permanent, e.g. in case of relocation of the *addressee* (4.3), or temporary. They may also involve the holding of mail for collection by the addressee or the *mailee* (4.9).