AS/NZS ISO 19160.4:2020
ISO 19160-4:2017

Australian/New Zealand Standard™

Addressing

Part 4: International postal address components and template language

AS/NZS ISO 19160.4:2020

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First published as AS/NZS ISO 19160.4:2020.

Preface

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee IT-004, Geographical Information/Geomatics.

The objective of this document is to define key terms for postal addressing, postal address components and constraints on their use.

Specifically, this document defines postal address components organized into three hierarchical levels:

(a) 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 purposes;

(b) constructs, such as organization identification, which group elements into units form a logical portion of a postal address;

(c) segments, such as addressee specification, which group-related postal address constructs and/or postal address elements into units with a specific defined function.

This document also specifies 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.

Moreover, this document defines the codes to identify elements and sub-elements.

Further, this document 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 document as a postal address template.

Finally, this document specifies language suitable for computer processing to formally express postal address templates.

This document does not specify the length of any component nor the value range of any component.

This document is identical with, and has been reproduced from, ISO 19160-4:2017, *Addressing — Part 4: International postal address components and template language.*

As this document has been reproduced from an International Standard, a full point substitutes for a comma when referring to a decimal marker.

Australian or Australian/New Zealand Standards that are identical adoptions of international normative references may be used interchangeably. Refer to the online catalogue for information on specific Standards.

The terms “normative” and “informative” are used in Standards to define the application of the appendices or annexes to which they apply. A “normative” appendix or annex is an integral part of a Standard, whereas an “informative” appendix or annex is only for information and guidance.

Contents

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 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 the following URL: www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 211, *Geographic information/Geomatics*.

A list of all parts in the ISO 19160 series can be found on the ISO website.

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.

When mail is sent with addresses that are incorrect or incomplete, there is the possibility of undeliverable as addressed mail (UAA mail) which results in the mail being sent back to a return address, being sent on to a forwarding address or discarded as waste. All this unnecessary work has negative economic consequences.

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 the 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 to the 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 document 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 document may be used to exchange information about address rendering rules on international cross-border mail and domestic mail. These templates are available from the UPU for all countries which have approved them. This facilitates automated processing of mail and international e-commerce deliveries. Rendition engines based on this document are expected to produce the same results for the same addresses. This is conditional upon using approved templates with the same parameters. Even if this were not the case, consistency remains an appropriate goal.

The intended readers of this document 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 UAA mail.

The preparatory work for this project is described in *Review summary of the* ISO 19160 *stage zero project* (20110)[2] 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 document 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.

This document is based on UPU S42, Part A, Version 7 and has been developed with UPU. It is intended to be adopted by CEN as a replacement for EN 14142-1.

NOTES

Australian/New Zealand Standard

Addressing

Part 4: International postal address components and template language

1 Scope

This document defines key terms for postal addressing, postal address components and constraints on their use.

Specifically, this document 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 purposes;

— 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.

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Finally, this document specifies language suitable for computer processing to formally express postal address templates.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. 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 codes*

ISO 15924, *Information and documentation — Codes for the representation of names of scripts*

3 Terms and definitions

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