INTERNATIONAL STANDARD

ISO 13616

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Banking and related financial services — International Bank Account Number (IBAN)

Banque et services financiers connexes — Numéro de compte bancaire international (IBAN)

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.

Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

International Standard ISO 13616 was prepared by Technical Committee ISO/TC 68, *Banking, securities and other financial services*.

Annexes A and B form an integral part of this International Standard. Annex C is for information only.

Introduction

The use of electronic communication media and services internationally for the cross-border transmission of information and payment and payment related transactions between financial institutions and between financial institutions and their customers is continuing to increase dramatically. In order to facilitate automated process in this environment this International Standard has been developed by ISO/TC 68 as a means by which financial institutions and their customers can exchange, through inter-industry electronic data interchange (EDI), customer account identification details in a machine readable form and it also makes provision for validation of the information provided.

In developing this International Standard, it was recognized that single universal method for identifying the account and banking relationship for customers of financial institutions was not practical. Accordingly, this International Standard recognizes that financial institutions would wish to retain, wherever possible, their current National identification methods and therefore it provides a method whereby a minimum amount of change to existing systems is required and, at the same time, proposes a means of structuring the information in a way which promotes automated processing of the information provided.

The use of this International Standard in electronic data interchange will

a)   reduce the need for manual intervention in the processing of inter-industry and intra-industry data interchange;

b)   improve the level of confidence in the accuracy of the information provided;

c)   provide certainty that the information provided is relevant to the country of ownership of the account.

It is recognized that the IBAN would be of use in a paper environment. The use of information to further qualify details of the financial institution at which the IBAN applies is not precluded by their use outside of the IBAN.

Calculation and validation of the check digits are defined in annex B.

Banking and related financial services – International Bank Account Number (IBAN)

1 Scope

This International Standard specifies the elements of an International Bank Account Number (IBAN) which are used in order to facilitate processing of data to be used in data interchange internationally in financial environments as well as within and between other industries.

This IBAN is designed for automated processing. It may also be conveniently used in other media interchange when appropriate (e.g. paper document exchange, etc.).

This International Standard does not specify internal procedures, file organization techniques, storage media, languages, etc. to be used in its implementation.

This International Standard is not designed to facilitate the routing of messages within a network: it is applicable to the textual data which might be conveyed through a system (network).

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this International Standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 3166:1993, *Codes for the representation of names of countries*.

ISO 7064:1983, *Data processing — Check character systems*.

ISO 8908:1993, *Banking and related financial services — Vocabulary and data elements*.

ISO 9362:1994, *Banking — Banking telecommunication messages — Bank identifier codes*.

3 Definitions

For the purposes of this International Standard, the following definitions apply.

3.1 Basic Bank Account Number (BBAN): the identifier used by financial institutions in individual countries, generally as part of a National Account Numbering Scheme(s), which uniquely identifies an account of a customer at a financial institution.

3.2 International Bank Account Number (IBAN): an expanded version of the Basic Bank Account Number (BBAN) used internationally to uniquely identify the account of a customer at a financial institution.

4 Conventions

This International Standard uses the following conventions for data element representations (based on ISO 8908, 3.2).

Status of sub-elements of a data element:

[   ] = optional

Character representations:

n   :   digits (numeric characters 0 to 9 only)

a   :   letters (alphabetical characters a-z and A-Z only)

an   :   letters and digits (alpha/numeric without "special" characters such as blanks, separators, punctuation, etc.)

x   :   any character of the permitted character set as specified in the given application

e   :   space

Length indications:

n̲   :   fixed length

nn   :   maximum length

5 Structure

The format of the IBAN (electronic) shall be:

2a2n30an

For the format of IBAN in a paper environment, refer to annex A.

The components of the IBAN in the electronic environment shall not be separated or spaced.

The components of the IBAN are as follows.

a) The first 2 letters (2a) shall always be the 2 character country code (alpha version), as defined in ISO 3166, of the country in which the bank branch servicing/maintaining the IBAN resides.

b) The 3rd and 4th characters (2n) shall be the check digit(s) as calculated from the scheme defined in this International Standard (clause 6).

c) In electronic transmission of the IBAN the remaining characters (up to 30an) shall be the BBAN without separators or "special" characters (see definition in clause 2).

No structure for the BBAN is defined in this International Standard. Recognition of the bank and branch at which the account identified by the BBAN is serviced is implicit within the BBAN.

6 Check digits

The check digits will be calculated based on the scheme defined in ISO 7064 (MOD 97-10) as shown in annex B.

The check digits are used to verify the BBAN and country code.

Only the financial institution which services (maintains) the account is allowed to generate its IBAN (including check digits).

6.1 To check the check digits

6.1.1 If the IBAN is in paper format (see annex A) then delete all non alphanumeric characters and the preceding letters "IBAN".

6.1.2 Move the first four characters to the right-hand end of the account number.

6.1.3 Convert letters to digits in accordance with the following:

A = 10 F = 15 K = 20 P = 25 U = 30

B = 11 G = 16 L = 21 Q = 26 V = 31

C = 12 H = 17 M = 22 R = 27 W = 32

D = 13 I = 18 N = 23 S = 28 X = 33

E = 14 J = 19 O = 24 T = 29 Y = 34

Z = 35

The numerical values are the same whether using upper or lower case alphabetical characters.

6.1.4 Apply the check character system MOD 97-10 (see ISO 7064).

6.1.5 If the remainder is 1 (one) then the number is valid.

6.2 To generate the check digits

6.2.1 Delete all non alphanumeric characters.

6.2.2 Add the country code (2a) and "00" to the right-hand end.

6.2.3 Convert letters (alpha characters) to digits (numeric characters) in accordance with 6.1.3.

6.2.4 Apply the check character system MOD 97-10 (see ISO 7064).

Annex C describes examples of BBAN and how they might appear as IBANs for electronic transmission and on paper media.

Annex A
(normative)
Use of IBAN in a paper environment

A.1 Introduction

This annex specifies the use and representation of IBAN in a paper environment.

A.2 Scope

In a paper environment, where the specification of an account number is required, the IBAN shall be used as defined in this annex.

The generation of a payment (or related) instruction on paper shall always include an IBAN and, in addition, where appropriate, the instruction may include identification of the financial institution servicing the IBAN by an alternative identification scheme other than that implicit in the IBAN (e.g. BIC as defined in ISO 9362).

Mandating the positioning of the IBAN in/on a paper instruction is not considered to be within the scope of this International Standard.

A.3 Structure

In addition to the structure defined in this International Standard the following components can be used in a paper environment.

*   The tag "IBAN" shall precede the IBAN code in paper representations (see examples in annex C).

*   Non alphanumeric characters are allowed for representation of the IBAN on paper.

A.4 IBANe2a2ne30x

The IBAN will be represented as follows:

*   IBAN: code, mandatory

*   Space, mandatory

*   Country code, mandatory

*   Check digit, mandatory

*   Space, mandatory

*   BBAN, mandatory

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Annex B

(normative)

Calculation and validation of the check digits

B.1 Method of constructing an IBAN from a BBAN and calculating the check digits

B.1.1 Reformat the BBAN by deleting all non alphanumeric characters and spaces.

EXAMPLE A BBAN of 320-0347134-41 becomes:

320034713441

B.1.2 Add the country code (2a from ISO 3166) followed by the digits "00") to the right-hand end of the number.

EXAMPLE The number now becomes:

320034713441BE00

B.1.3 Convert the alpha characters to numeric characters in accordance with 6.1.3.

EXAMPLE The number now becomes:

320034713441111400

B.1.4 Calculate the modulo 97 (the remainder after division by 97).

EXAMPLE The remainder after division of 320034713441111400 by 97 is ten (10).

B.1.5 Subtract the remainder from 98 and if the result is less than ten insert a leading zero.

EXAMPLE 98 minus ten equals 88 so IBAN is equal to:

electronic format: BE88320034713441

or

paper format: IBAN BE88 320-0347134-41

B.2 Method of validating the check digits on an IBAN

The following is a method to validate the check digits of an IBAN.

The following IBAN will be used as an example:

BE88320034713441

B.2.1 Move the first four characters of the IBAN to the right of the number.

EXAMPLE 320034713441BE88

B.2.2 Convert the alpha characters to numerics in accordance with 6.1.3.

EXAMPLE 320034713441111488

B.2.3 Calculate the modulo 97 (the remainder after division by 97).

EXAMPLE The remainder after division of 320034713441111488 by 97 is one (1).

B.2.4 If the remainder is one (1) then the check digits are correct for this IBAN.

Annex C
(informative)
Examples of Basic Bank Account Numbers (BBAN) in some countries and resulting IBANS

BELGIUM	BBAN	510-0075470-61
	Electronic IBAN	BE62510007547061
	Paper IBAN	IBAN BE62 510-0075470-61

CANADA	BBAN	012323456-123 123456789012
	Electronic IBAN	CA85012323456123123456789012
	Paper IBAN	IBAN CA85 012323456-123 123456789012

FRANCE	BBAN	20041 01005 0500013M02606
	Electronic IBAN	FR1420041010050500013M02606
	Paper IBAN	IBAN FR14 20041 01005 0500013M02606

UNITED KINGDOM	BBAN	40-05-15 31959704
	Electronic IBAN	GB9840051531959704
	Paper IBAN	IBAN GB98 40-05-15 31959704

NOTE — The above examples are based on currently available information on some national account structures and are being used for illustrative/demonstration purposes only. This information may not be accurate at the time of publication of this International Standard and may subsequently change.