

IBAN Validation and Generation Library for Perl

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The IBAN Validation and Generation Library provides an API for applications that work with International Bank Account Numbers. Integration of the library to an application is generally straight forward.

The library has attempted to simplify the task of IBAN generation by providing country specific routines that maintain a uniform interface. Basically every country will require an account number, and a means to identify the issuing bank. For some countries this information is embedded within the account number itself while other countries require additional information such as BIC codes or SWIFT addresses.

While the current version of the library can perform basic validation and formatting of Basic Bank Account Numbers (BBAN's) it cannot actually verify the bank codes.

Common Return Codes

The library uses common return result codes throughout.

Result Code	Description
1	IBAN valid, operation successful
0	An IBAN was expected.
-1	Entry is too short to be a valid IBAN.
-2	Entry is too long to be a valid IBAN.
-3	Entry does not contain a valid ISO 3166 country code.
-4	Invalid IBAN checksum.
-5	IBAN length incorrect for issuing country.
-6	IBAN support not implemented for specified country.
-7	National account number length is incorrect.
-8	Bank, branch, or sort code length is incorrect.
-9	Bank identifier, BIC, or SWIFT code length is incorrect.
-10	Invalid national account checksum length.
-11	Invalid national account checksum.
-12	A national account number was expected.
-13	A bank, branch, or sort code was expected.
-14	A national account checksum was expected.
-15	A bank identifier, BIC, or SWIFT code was expected.

IBAN Validation

my (\$result,\$country) = CheckIban (\$IBAN);

Validates the IBAN by extracting the ISO 3166 country code, IBAN checksum, and BBAN. The number is validated for country specific length requirements and IBAN checksum correctness.

Parameters:

\$IBAN
International Bank Account Number to validate.

Returns:

\$result
Common result code. The \$eformat and \$pformat fields are valid with a successful return code (1). See common return codes.

\$country
Name of issuing country.

my (\$Result,\$Iso3166, \$BankId , \$BankCode,\$BranchCode,\$Account,\$Checksum) = GetBbanFields (\$IBAN);

Validates the IBAN and extracts the country specific BBAN fields.

Parameters:

\$IBAN
International Bank Account Number to validate.

Returns:

\$result
Common result code. The \$eformat and \$pformat fields are valid with a successful return code (1). See common return codes.

\$Iso3166
Two character ISO 3166 country code.

\$BankId
Generally first 4 characters of bank's SWIFT address, BIC, or other code if present.

\$BankCode
Generally bank's national identification code if present.

\$BranchCode
Generally a bank branch, sort, or similar code if present.

\$Account
The actual bank account number.

\$Checksum
Checksum of the account number if present.

IBAN Generation

my (\$result,\$eformat,\$pformat) = GenerateIban(\$BBAN,\$iso);

This routine constructs an IBAN from a Basic Bank Account Number (BBAN) and the ISO 3166 country code. The routine performs basic length checks and checksum generation of the IBAN based on the ISO 3166 country code however it does not validate the BBAN.

Parameters:

\$BBAN

Fully constructed BBAN. The routine does not validate the BBAN and assumes it is correctly formatted.

\$iso

Two character ISO 3166 country code.

Returns:

\$result

Common result code. The \$eformat and \$pformat fields are valid with a successful return code (1). See common return codes.

\$eformat

The IBAN in electronic format.

\$pformat

The IBAN in paper format.

Country Specific BBAN and IBAN Generation

my (\$result,\$eformat,\$pformat) = GenerateIban_?(\$a,\$b,\$c,\$f);

These country specific routines are used to first construct the Basic Bank Account Number BBAN and then in turn use it to generate the IBAN. Basic Bank Account Numbers are built from country specific national account and bank identification codes. Basic validation is performed for all parameters however the library does not perform actual verification of bank, branch, BIC, or SWIFT codes.

These routines maintain a common calling convention with standardized input and return parameters. Not all countries will require all input fields. When an input field is not required an empty string should generally be passed as a place holder.

Parameters:

- \$a* National bank account number. National account numbers vary in length. They may contain alpha numeric, alpha, or numeric characters and may contain integral checksums.
- \$b* National bank, bank branch, or sort code. This field, when required, generally contains information that is used to uniquely identify the issuing bank.
- \$c* Account checksum. This field may or may not be required. Certain countries include account checksums as an integral part of the account number while others do not.
- \$f* Bank identifier. This field may be required in addition to or instead of the bank, bank branch, or sort code. When required this field generally contains the bank's BIC or first 4 characters from the bank's SWIFT address.

Returns:

- \$result* Common result code. The \$eformat and \$pformat fields are valid with a successful return code (1). See common return codes.
- \$eformat* The IBAN in electronic format.
- \$pformat* The IBAN in paper format.

Andorra

my (\$result,\$eformat,\$pformat) = GenerateIban_Ad(\$a,\$b,\$c,\$f);

Domestic Account Number Format ... 0023457320119043

Parameters:

\$a (0023457320119043)
Número de compte (Account Number). 6 to 20 alphanumeric characters in length.

\$b
not used.

\$c
not used.

\$f
not used.

Returns:

\$result
See common return codes.

\$eformat
The IBAN in electronic format.

\$pformat
The IBAN in paper format.

Austria

my (\$result,\$eformat,\$pformat) = GenerateIban_At(\$a,\$b,\$c,\$f);

Domestic Account Number Format ... 00234573201 BLZ 19043

Parameters:

\$a (00234573201)
Kontonummer (Account Number). 4 to 11 numeric characters in length.

\$b (19043)
Bankleitzahl (Bank Code). 5 digit bank identification code.

\$c
not used.

\$f
not used.

Returns:

\$result
See common return codes.

\$eformat
The IBAN in electronic format.

\$pformat
The IBAN in paper format.

Belgium

my (\$result,\$eformat,\$pformat) = GenerateIban_Be(\$a,\$b,\$c,\$f);

Domestic Account Number Format... 539-0075470-34

Parameters:

\$a (0075470)
7 digit account number.
\$b (539)
3 digit bank code.
\$c (34)
Optional 2 digit checksum. Calculated if not passed else validated if passed
\$f
not used.

Returns:

\$result
See common return codes.
\$eformat
The IBAN in electronic format.
\$pformat
The IBAN in paper format.

Cyprus

my (\$result,\$eformat,\$pformat) = GenerateIban_Cy(\$a,\$b,\$c,\$f);

Domestic Account Number Format... 123 12345 1234567890123456

Parameters:

\$a (1234567890123456)
Arithmos Logarismou (Account Number)
\$b (123-12345)
1 to 3 digit Kodikos Trapezas (Bank Code) and 0 to 5 digit Kodikos Katastimatos (Branch Code). If both components are present they should be passed as a single value separated with a hyphen.
\$c
not used.
\$f
not used.

Returns:

\$result
See common return codes.
\$eformat
The IBAN in electronic format.
\$pformat
The IBAN in paper format.

Czech Republic

my (\$result,\$eformat,\$pformat) = GenerateIban_Cz(\$a,\$b,\$c,\$f);

Domestic Account Number Format... 000019-2000145399/0800

Parameters:

\$a (000019-2000145399)

0 to 6 digit První část čísla účtu (předěsíslí) (First part - prefix). 2 to 10 digit Druhá, základní část čísla účtu (Second part - basic). If both components of the account number are present they should be passed as a single value separated by a hyphen.

\$b (0800)

4 digit Kód banky (Bank code)

\$c

not used.

\$f

not used.

Returns:

\$result

See common return codes.

\$eformat

The IBAN in electronic format.

\$pformat

The IBAN in paper format.

Denmark, Greenland, and Faroe Islands

my (\$result,\$eformat,\$pformat) = GenerateIban_Dk(\$a,\$b,\$c,\$f);

my (\$result,\$eformat,\$pformat) = GenerateIban_Gl(\$a,\$b,\$c,\$f);

my (\$result,\$eformat,\$pformat) = GenerateIban_Fo(\$a,\$b,\$c,\$f);

Domestic Account Number Format... 0040 0440116243

Parameters:

\$a (0440116243)

4 to 10 digit Kontonummer (Account Number).

\$b (0040)

1 to 4 digit Registreringsnummer (Bank Code).

\$c

not used.

\$f

not used.

Returns:

\$result

See common return codes.

\$eformat

The IBAN in electronic format.

\$pformat

The IBAN in paper format.

Estonia

my (\$result,\$eformat,\$pformat) = GenerateIban_Ee(\$a,\$b,\$c,\$f);

Domestic Account Number Format... 12 1234 5678 901 1

Parameters:

\$a (1234 5678 901 1)

2 to 12 digit Kontonumber (Account Number) includes trailing check digit. Account number is checksum validated.

\$b (12)

2 digit Pangakood (Bank - Branch code).

\$c

not used.

\$f

First 4 characters from bank's SWIFT address or BIC code.

Returns:

\$result

See common return codes.

\$eformat

The IBAN in electronic format.

\$pformat

The IBAN in paper format.

Finland

my (\$result,\$eformat,\$pformat) = GenerateIban_Fi(\$a,\$b,\$c,\$f);

Domestic Account Number Format... 123456-12345671

Parameters:

\$a (12345671)

2 to 8 digit account number. Includes trailing check digit. Account number is checksum validated.

\$b (123456)

6 digit bank code.

\$c

not used.

\$f

not used.

Returns:

\$result

See common return codes.

\$eformat

The IBAN in electronic format.

\$pformat

The IBAN in paper format.

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France, Monaco

my (\$result,\$eformat,\$pformat) = GenerateIban_Fr(\$a,\$b,\$c,\$f);

my (\$result,\$eformat,\$pformat) = GenerateIban_Mc(\$a,\$b,\$c,\$f);

Domestic Account Number Format... 12345 12345 12345678901 12

Parameters:

\$a (12345678901 12)

13 digit Numéro de compte (Account Number) includes 2 digit trailing checksum.
Account number is checksum validated.

\$b (12345 12345)

5 digit Code banque (Bank Code) and 5 digit Code guichet (Branch Code). Concatenated and passed as a single parameter, no separated required.

\$c

not used.

\$f

not used.

Returns:

\$result

See common return codes.

\$eformat

The IBAN in electronic format.

\$pformat

The IBAN in paper format.

Germany

my (\$result,\$eformat,\$pformat) = GenerateIban_De(\$a,\$b,\$c,\$f);

Domestic Account Number Format... 1234567890 12345678

Parameters:

\$a (1234567890)

1 to 10 digit Kontonummer (Account Number).

\$b (12345678)

8 digit Bankleitzahl (Bank Code).

\$c

not used.

\$f

not used.

Returns:

\$result

See common return codes.

\$eformat

The IBAN in electronic format.

\$pformat

The IBAN in paper format.

Gibraltar

my (\$result,\$eformat,\$pformat) = GenerateIban_Gi(\$a,\$b,\$c,\$f);

Domestic Account Number Format... 123456789012345

Parameters:

- \$a* (123456789012345)
1 to 15 digit account number.
- \$b*
not used.
- \$c*
not used.
- \$f*
First 4 characters from bank's SWIFT address or BIC code.

Returns:

- \$result*
See common return codes.
- \$eformat*
The IBAN in electronic format.
- \$pformat*
The IBAN in paper format.

Greece

my (\$result,\$eformat,\$pformat) = GenerateIban_Gr(\$a,\$b,\$c,\$f);

Domestic Account Number Format... 123 1234 1234567890123456

Parameters:

- \$a* (1234567890123456)
8 to 16 digit Arithmos Logarismou (Account Number).
- \$b* (123 1234)
0 to 3 digit Kodikos Trapezas (Bank code) and 0 to 4 digit Kodikos Katastimatos (Branch code). These components should be concatenated separated by a hyphen and passed as a single value when present.
- \$c*
not used.
- \$f*
not used.

Returns:

- \$result*
See common return codes.
- \$eformat*
The IBAN in electronic format.
- \$pformat*
The IBAN in paper format.

Hungary

my (\$result,\$eformat,\$pformat) = GenerateIban_Hu(\$a,\$b,\$c,\$f);

Domestic Account Number Format... 12345678-1234567890

Parameters:

- \$a* (1234567890)
8 to 16 digit bankszámlaszám (Account Number). Account number is checksum validated
- \$b* (12345678)
8 digit bank és bankfiók kód (irányítószám) (Bank code).
- \$c*
not used.
- \$f*
First 4 characters from bank's SWIFT address or BIC code.

Returns:

- \$result*
See common return codes.
- \$eformat*
The IBAN in electronic format.
- \$pformat*
The IBAN in paper format.

Iceland

my (\$result,\$eformat,\$pformat) = GenerateIban_Is(\$a,\$b,\$c,\$f);

Domestic Account Number Format... 1234-12-123456-123456-7890

Parameters:

- \$a* (12-123456-123456-7890)
18 digit account information as follows: 2 digit Höfuðbók / Reikningstegund (Account type), 6 digit Reikningsnúmer (Account number), and 10 digit Kennitala (Identification number). This value is checksum validated.
- \$b* (1234)
4 digit Bankanúmer (Bank Code).
- \$c*
not used.
- \$f*
not used.

Returns:

- \$result*
See common return codes.
- \$eformat*
The IBAN in electronic format.
- \$pformat*
The IBAN in paper format.

Ireland

my (\$result,\$eformat,\$pformat) = GenerateIban_Ie(\$a,\$b,\$c,\$f);

Domestic Account Number Format... 95-10-63 00536003

Parameters:

- \$a* (00536003)
8 digit account number.
- \$b* (95-10-63)
6 digit bank sort code.
- \$c*
not used.
- \$f*
First 4 characters from bank's SWIFT address or BIC code.

Returns:

- \$result*
See common return codes.
- \$eformat*
The IBAN in electronic format.
- \$pformat*
The IBAN in paper format.

Italy, San Marino

my (\$result,\$eformat,\$pformat) = GenerateIban_It(\$a,\$b,\$c,\$f);

my (\$result,\$eformat,\$pformat) = GenerateIban_Sm(\$a,\$b,\$c,\$f);

Domestic Account Number Format... X 05428 11101 000000123456

Parameters:

- \$a* (000000123456)
6 to 12 digit Numero di Conto (Account Number). Account number is checksum validated.
- \$b* (05428 11101)
5 digit ABI code (Bank Code) and 5 digit CAB code (Branch Code). These two components should be concatenated and passed as a single value. No separator required.
- \$c* (X)
Single character CIN (Control Internal Number) (check sum) if present. If not present this value will be generated.
- \$f*
not used.

Returns:

- \$result*
See common return codes.
- \$eformat*
The IBAN in electronic format.
- \$pformat*
The IBAN in paper format.

Latvia

my (\$result,\$eformat,\$pformat) = GenerateIban_Lv(\$a,\$b,\$c,\$f);
Domestic Account Number Format... 1234 5123 4567 8901

Parameters:

\$a (5123 4567 8901)
6 to 13 character Konta numurs (Account Number).
\$b (1234)
4 character Bankas kods (Bank Code).
\$c
not used.
\$f
not used.

Returns:

\$result
See common return codes.
\$eformat
The IBAN in electronic format.
\$pformat
The IBAN in paper format.

Lithuania

my (\$result,\$eformat,\$pformat) = GenerateIban_Lt(\$a,\$b,\$c,\$f);
Domestic Account Number Format... 1234 5123 4567 8901

Parameters:

\$a (123 4567 8901)
8 to 11 digit Kontroliniai skaičiai (Account Number).
\$b (1234 5)
5 digit Banko kodas (Bank Code).
\$c
not used.
\$f
not used.

Returns:

\$result
See common return codes.
\$eformat
The IBAN in electronic format.
\$pformat
The IBAN in paper format.

Luxembourg

my (\$result,\$eformat,\$pformat) = GenerateIban_Lu(\$a,\$b,\$c,\$f);
Domestic Account Number Format... 001 9400644750000

Parameters:

\$a (9400644750000)
13 digit Numéro client racine (Account Number).
\$b (001)
3 digit Code bancaire (Bank Code).
\$c
not used.
\$f
not used.

Returns:

\$result
See common return codes.
\$eformat
The IBAN in electronic format.
\$pformat
The IBAN in paper format.

Malta

my (\$result,\$eformat,\$pformat) = GenerateIban_Mt(\$a,\$b,\$c,\$f);
Domestic Account Number Format... 1234567890123456

Parameters:

\$a (1234567890123456)
8 to 16 digit account number.
\$b
5 digit bank code.
\$c
not used.
\$f
First 4 characters from bank's SWIFT address or BIC code.

Returns:

\$result
See common return codes.
\$eformat
The IBAN in electronic format.
\$pformat
The IBAN in paper format.

Netherlands

my (\$result,\$eformat,\$pformat) = GenerateIban_Nl(\$a,\$b,\$c,\$f);

Domestic Account Number Format... 123 45 67 890

Parameters:

- \$a* (123 45 67 890)
2 to 10 digit Rekeningnummer (Account Number). This number is checksum validated.
- \$b*
not used.
- \$c*
not used.
- \$f*
First 4 characters from bank's SWIFT address or BIC code.

Returns:

- \$result*
See common return codes.
- \$eformat*
The IBAN in electronic format.
- \$pformat*
The IBAN in paper format.

Norway

my (\$result,\$eformat,\$pformat) = GenerateIban_No(\$a,\$b,\$c,\$f);

Domestic Account Number Format... 1234.12.34561

Parameters:

- \$a* (1234.12.34561)
11 digit Kontonummer (Account Number). This number is checksum validated.
- \$b*
not used.
- \$c*
not used.
- \$f*
not used.

Returns:

- \$result*
See common return codes.
- \$eformat*
The IBAN in electronic format.
- \$pformat*
The IBAN in paper format.

Poland

my (\$result,\$eformat,\$pformat) = GenerateIban_Pl(\$a,\$b,\$c,\$f);

Domestic Account Number Format... 12345678-1234567890123456

Parameters:

- \$a* (1234567890123456)
8 to 16 digit Numer porz'ldkowy rachunku (Account Number).
- \$b* (12345678)
8 digit Numer rozliczeniowy jednostki organizacyjnej banku (Bank Code).
- \$c*
not used.
- \$f*
not used.

Returns:

- \$result*
See common return codes.
- \$eformat*
The IBAN in electronic format.
- \$pformat*
The IBAN in paper format.

Portugal

my (\$result,\$eformat,\$pformat) = GenerateIban_Pt(\$a,\$b,\$c,\$f);

Domestic Account Number Format... 1234.1234.12345678901.12

Parameters:

- \$a* (12345678901)
11 digit Número de conta (Account Number).
- \$b* (1234 1234)
4 digit Código de Banco (Bank Code) and 4 digit Código de Balcão (Branch Code).
These two components should be concatenated and passed as a single value. No separator required.
- \$c* (12)
2 digit Dígitos de controlo (check sum)
- \$f*
not used.

Returns:

- \$result*
See common return codes.
- \$eformat*
The IBAN in electronic format.
- \$pformat*
The IBAN in paper format.

Slovak Republic

my (\$result,\$eformat,\$pformat) = GenerateIban_Sk(\$a,\$b,\$c,\$f);

Domestic Account Number Format... 123456-1234567890/1234

Parameters:

\$a (123456-1234567890)

0 to 6 digit Prvá cast čísla účtu (predčíslie) (First part - prefix) and 2 to 10 digit Druhá, základná cast čísla účtu (Second part - basic). When both components are present they should be concatenated and separated by a hyphen and passed as a single value. This field is checksum validated.

\$b (1234)

4 digit Kód banky (Bank code).

\$c

not used.

\$f

not used.

Returns:

\$result

See common return codes.

\$eformat

The IBAN in electronic format.

\$pformat

The IBAN in paper format.

Slovenia

my (\$result,\$eformat,\$pformat) = GenerateIban_Si(\$a,\$b,\$c,\$f);

Domestic Account Number Format... 12345-1234567812

Parameters:

\$a (1234567812)

5 to 10 digit account number.

\$b (12345)

2 to 5 digit bank code.

\$c

not used.

\$f

not used.

Returns:

\$result

See common return codes.

\$eformat

The IBAN in electronic format.

\$pformat

The IBAN in paper format.

Spain

my (\$result,\$eformat,\$pformat) = GenerateIban_Es(\$a,\$b,\$c,\$f);

Domestic Account Number Format... 1234 5678 90 1234567890

Parameters:

\$a (1234567890)

10 digit Número de cuenta (Account Number). This field is checksum validated.

\$b (1234 5678)

4 digit Código de entidad (Bank Code) and 4 digit Código de oficina (Branch Code).

These two components should be concatenated and passed as a single value. No separator required.

\$c (90)

2 digit Dígitos de control (Check sums).

\$f

not used.

Returns:

\$result

See common return codes.

\$eformat

The IBAN in electronic format.

\$pformat

The IBAN in paper format.

Sweden

my (\$result,\$eformat,\$pformat) = GenerateIban_Se(\$a,\$b,\$c,\$f);

Domestic Account Number Format... 1234 12 3456 1

Parameters:

\$a

20 digit account number.

\$b

not used.

\$c

not used.

\$f

not used.

Returns:

\$result

See common return codes.

\$eformat

The IBAN in electronic format.

\$pformat

The IBAN in paper format.

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Switzerland, Liechtenstein

my (\$result,\$eformat,\$pformat) = GenerateIban_Ch(\$a,\$b,\$c,\$f);

my (\$result,\$eformat,\$pformat) = GenerateIban_Li(\$a,\$b,\$c,\$f);

Domestic Account Number Format... 12345 1234567890123456

Parameters:

\$a (1234567890123456)

1 to 12 digit Kontonummer (Account number).

\$b (12345)

5 digit Clearingnummer (Bank - branch code).

\$c

not used.

\$f

not used.

Returns:

\$result

See common return codes.

\$eformat

The IBAN in electronic format.

\$pformat

The IBAN in paper format.

United Kingdom

my (\$result,\$eformat,\$pformat) = GenerateIban_Gb(\$a,\$b,\$c,\$f);

Domestic Account Number Format... 12-34-56 12345678

Parameters:

\$a (12345678)

7 to 8 digit account number.

\$b (12-34-56)

6 digit Sort Code/Branch Number (Bank - Branch code).

\$c

not used.

\$f

First 4 characters from bank's SWIFT address or BIC code.

Returns:

\$result

See common return codes.

\$eformat

The IBAN in electronic format.

\$pformat

The IBAN in paper format.

Tunisia

my (\$result,\$eformat,\$pformat) = GenerateIban_Tn(\$a,\$b,\$c,\$f);
Domestic Account Number Format... 12123123456789012312

Parameters:

\$a (123456789012312)
15 digit account number.
\$b (12123)
2 to 5 digit bank (and) branch code.
\$c
not used.
\$f
not used.

Returns:

\$result
See common return codes.
\$eformat
The IBAN in electronic format.
\$pformat
The IBAN in paper format.