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EIRCODE ADDRESS FILE PRODUCT GUIDE

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Using the Eircode Address File Product Guide

Introduction

This is the product guide to the Eircode Address File (ECAF) data product. The document is structured in two sections.

The Code of Practice available at www.eircode.ie and outlines the acceptable usage of Eircodes.

1. General Information

This section covers the following topics:

- What is an Eircode
- The structure of an Eircode
- Recommendation for storage and presentation
- Describes the ECAF data product
- Describes the postal address in the ECAF
- Describes how Irish language is included in the ECAF

2. Data Provision and Updates

This section covers the following topics:

- Data supply format and options for receiving updates
- Business process considerations

1. General Information

1.1 Background

Every residential and business address in Ireland will receive a unique Eircode in July 2015. The launch of Eircode marks the introduction of a public database of unique identifiers for all properties in Ireland which will assist citizens, businesses and public bodies to locate every individual address in the country.

Unlike other countries, where postcodes define clusters or groups of addresses, an Eircode will identify an individual address – rural or urban - and help show exactly where it is located. An Eircode is much more than just a postcode, it is a smart location code for all Irish addresses.

In July 2015, all 2.2 million addresses in the country will receive a letter notifying them of the Eircode for their address. It is anticipated that there will be rapid take-up and quick adoption of Eircode by the public and businesses. At that time a number of state bodies will be using Eircode in correspondence and in their dealings with their customers.

People and businesses will not need to change their address, they will just add the Eircode to the end of their current address. While the use of Eircode will not be mandatory on mail, many organisations and businesses will start to ask people to provide their Eircode as a normal part of doing business (e.g. to capture address details faster and more accurately, to improve delivery accuracy).

1.2 What is an Eircode?

An Eircode is a smart location codes for all Irish addresses. An Eircode will be assigned to every residential and business address in Ireland that receives post, as defined by the Universal Service Provider for postal services in Ireland. Throughout this document the term "Postal Address" always refers to a delivery address as defined by Irish Standard - I.S. EN 14142-1:2011 (Postal services. Address databases), as operated by the Universal Service Provider, An Post.

One or more Eircodes are assigned per building depending on the number of unique addresses within the building. For multi-occupancy residential premises, each individual address, e.g. "Apartment 1" receives its own Eircode. For multi-occupancy business premises unique address information is required, e.g. "Unit 1", otherwise the businesses are assigned the same Eircode.

For multi-occupancy mixed use buildings Eircodes are not shared between residential and non-residential addresses. The only exception to this rule is where the entire address is both residential and non-residential, e.g. a farm house.

1.3   Who supplies Eircode?

Eircode (the company), part of Capita Business Support Services (Ireland) Ltd is the Postcode Management Licence Holder (PMLH) and was awarded the government licence to design, launch and manage a postcode system for Ireland. This included the design and assignment of the postcode – now called "Eircode.

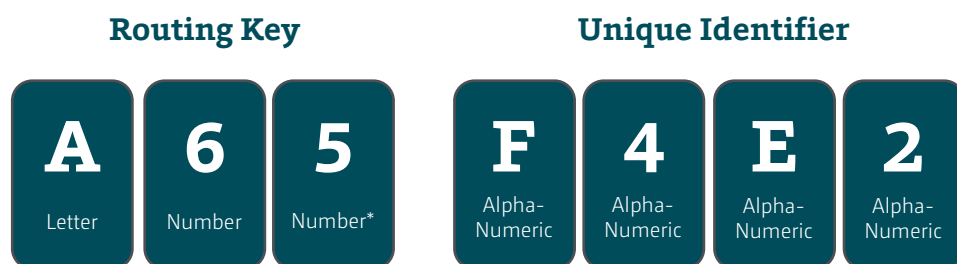Find out more by visiting the Eircode website www.eircode.ie

1.4   Sources of Data

The source data is supplied by An Post GeoDirectory Limited, which sources information from Ordnance Survey Ireland, The Placenames Branch (Department of Arts, Heritage and the Gaeltacht) and the Universal Service Provider for postal services in Ireland, An Post.

1.5   Eircode Structure and Presentation

An Eircode is a seven-character postcode consisting of two elements:

1.   Three-character Routing Key
2.   Four-character Unique Identifier

Routing Key   Unique Identifier

A	6	5		F	4	E	2
Letter	Number	Number*		Alpha-Numeric	Alpha-Numeric	Alpha-Numeric	Alpha-Numeric

* "W" allowed for only in D6W

1.5.1   Recommendations for Storage and Presentation

- An Eircode should always be stored as a single string of seven upper case characters in IT systems, i.e. A65F4E2.
- An Eircode should always be presented in upper case as two parts separated by a space, on stationary, mail items, computer forms, etc. i.e. A65 F4E2 and never A65F4E2.

1.5.2   Routing Key

The Routing Key is the first part of an Eircode and is consistently three characters long.   The Universal Service Provider identified principal post towns through which mail is distributed and Eircode assigned Routing Key codes to those principal post towns. The Routing Key format is Letter-Number-Number with the single exception of D6W for the Dublin 6W postal district. The existing Dublin Postal Districts 1 to 24 have been retained as D01 to D24. The Routing Key letter

and numbers assigned to the remainder of the 139 Routing Keys are not directly linked to counties, towns or any other geographic boundaries. A Routing Key will be shared by many properties in an area. Routing keys are fixed once assigned to an address and do not change.

1.5.3   Unique Identifier

The Unique Identifier is the second part of an Eircode and consistently comprises four characters. The Unique Identifier is unique within each Routing Key, but not across Routing Keys. Unique Identifiers are not assigned in any sequence order, nor is there any hierarchical grouping information contained in the Unique Identifier. Unique Identifiers are fixed once generated to an Eircode, and are only retired if there is a change of building use, e.g. A Georgian House is converted into a block of apartments.

The Unique Identifier has the same allowable characters in each position, twenty five characters in total defined from the following available list of numbers and letters:

NUMBERS:	0,1,2,3,4,5,6,7,8,9
LETTERS:	A,C,D,E,F,H,K,N,P,R,T,V,W,X,Y

This provides 25 x 25 x 25 x 25 possible combinations, which allows a maximum of 390,625 Eircodes per Routing Key.

1.5.4   Character Set

The characters allowed in each position in an Eircode are as below:

Component	Position	Allowed Characters
Routing Key	1	A,C,D,E,F,H,K,N,P,R,T,V,W,X,Y
	2	0-9
	3	0-9 with the exception of W for D6W
Unique Identifier	4	0-9 and A,C,D,E,F,H,K,N,P,R,T,V,W,X,Y
	5	
	6	
	7	

1.6 Eircode Address File (ECAF)

ECAF is the Eircode Address File which contains one record for each Postal Address. English language and Irish language versions are available. It is distributed as a flat file, details of data provision and updates are provided in *section 2.*

Address information in the ECAF is currently stored in upper case only.

The ECAF file layout is as follows:

Address Group	ECAF field	Max. field length
Unique Identifier	ECAF_ID	10
Premises Elements	Department	60
	Organisation	60
	Sub Building Name (e.g. 'Flat 1')	60
	Building Name (e.g. 'Rose Cottage')	60
	Building Number (e.g. 22)	40
Thoroughfare Elements	Building Group (e.g. 'Marian Terrace')	60
	Primary Thoroughfare (e.g. 'Griffith Road')	40
	Secondary Thoroughfare (e.g. Navan Road')	40
Locality Elements	Primary Locality (e.g. 'Cookstown Industrial Estate')	40
	Secondary Locality (e.g. 'Manorhamilton')	40
	Tertiary Locality (e.g. 'Dublin 14')	40
	Post County (e.g. 'Cork')	30
Eircode	Eircode (e.g. 'A65R2AF')	7
Address	Address Line 1	200
	Address Line 2	200
	Address Line 3	200
	Address Line 4	200
	Address Line 5	200
	Address Line 6	200
	Address Line 7	200
	Address Line 8	200
	Address Line 9	200
AN POST GEODIRECTORY ID	Address Reference	16

The unique identifier in the ECAF is the ECAF_ID. This unique identifier allows each address in the ECAF to be uniquely identified. It can also be used as index once the data has been imported into a relational database. This is a numeric field that can store values from 0 to 2,147,483,647. It is represented as a number up to 10 digits long. All other fields are alphanumeric.

The ADDRESS_REFERENCE is the An Post GeoDirectory address reference identifier used by the Universal Service Provider.

The Eircode is always the last line of a Postal Address generated within the state, e.g. if an address has four lines then the Eircode will be on its own on Address Line 5. For inbound international mail the country name IRELAND should be appended as the last line of the Postal Address.

1.7 Postal Address

The postal address as defined by Irish Standard - I.S. EN 14142-1:2011 (Postal services. Address databases), as operated by the Universal Service Provider, An Post, is the address used in the ECAF.

An Post, the Universal Service Provider, prompts postal users to use the addressing format required to maximise the effectiveness and efficiency of the postal service. Their addressing guides comply with the Universal Postal Union's (UPU) (the United Nations body responsible for promoting standards in the postal industry across the World) addressing guidelines.

The Postal Address is made up of a number of parts as outlined in the table below.

Address Parts
Department
Organisation
Sub Building Name (e.g. 'Flat 1')
Building Name (e.g. 'Rose Cottage')
Building Number (e.g. 22)
Building Group (e.g. 'Marian Terrace')
Primary Thoroughfare (e.g. 'Griffith Road')
Secondary Thoroughfare (e.g. Navan Road')
Primary Locality (e.g. 'Cookstown Industrial Estate')
Secondary Locality (e.g. 'Manorhamilton')
Tertiary Locality (e.g. 'Dublin 14')
Post County (e.g. 'Cork')
Eircode (e.g. 'A65F4E2')

There are twelve possible address parts but no Postal Address contains more than eight address lines. A set of rules is applied to the twelve possible address parts to construct an address with a maximum of eight lines plus a line for the Eircode. The results are stored in the ECAF as described in *section 1.6*.

1.8   Irish language in ECAF

The ECAF is bilingual by design.

If a translation is not available the English version of the address is used.

2. Data Provision and Updates

Updates are available from Eircode on a quarterly basis. These are available for secure download via the Eircode website www.eircode.ie

2.1 ECAF

There are two types of update available for the ECAF:

- ◆ Complete dataset
- ◆ Update only

The simplest way to update the ECAF is to take regular refreshes of the full dataset, removing the current data and replacing it with the updated complete dataset. This is low effort and guarantees that the version of the ECAF is fully up-to-date and correct.

An Update Only version is also available but each update must be rigidly applied in the correct order, one version after another.

The data is stored in text files that are tab delimited with column headers as the first line and each subsequent line is a row of data. The lines are separated by newline characters. The character encoding is Windows 1252.

Description	Character	Ascii values
Delimiter	Tab (\t)	0x09
Newline	Newline (\r \n)	0x0A , 0x0D

2.1.1 Complete Dataset

The Complete Dataset consists of a single zip file with both English and Irish versions of a text file that contains the whole dataset for this release of the ECAF. The schema of the ECAF is described in *Section 1.6 Eircode Address File*. The file size estimate for the Complete Dataset zip file is 120Mb, the unzipped contents are approximately 600Mb.

When updating an ECAF with the complete dataset, the existing data for the ECAF table should be removed, leaving an empty table. Then import the new file into the table giving a fully updated ECAF table.

2.1.2 Update Only Dataset

The update only dataset consists of a single zip file with both English and Irish versions of two text files that contain all the changes required to add, update and remove the necessary records to upgrade ECAF from one release to the next. The zip file size estimate is currently unknown but will be substantially less than the Complete Dataset file.

2.1.2.1   Insert and Update File for Update Only process

The *Insert and Update File* contains new records to insert and records to modify. Each data record in the file contains its unique identifier, ECAF_ID. If the record does not already exist it should be inserted. If the record exists then it should be overwritten with the complete ECAF data row in the update file. The file format of the *Insert and Update file* is the same as the Complete Dataset file.

2.1.2.2   Delete File for Update Only process

The *Delete File* contains details of all the records that need to be removed from the ECAF as part of the release.

Each data row will contain an ECAF_ID of the record to remove from the ECAF as illustrated below:

ECAF_ID
1000235479
1000246579

When each data record in the delete file has been processed then the ECAF update process is complete.

2.2   Change Processes

ECAF updates bring changes to addresses, and in certain cases, changes to Eircodes. Users should consider how their business processes will cater for the following:

- *Changed Address Elements*
  A thoroughfare, building name, etc. which previously had a different name to its current name

- *Retired Address Elements*
  A thoroughfare, locality, etc. that no longer exists in any Postal Address.

- *Retired Eircodes*
  When buildings are demolished, or if a building is changed from multi-unit to a single unit, then associated Eircodes are retired.

- *Replacement Eircodes*
  There may be exceptional circumstances that require an Eircode to be retired and substituted with another Eircode. If this occurs it will most likely be driven by updated sub-building information for multi-unit buildings that results in these addresses being given their own unique Eircode. It is Eircode's policy not to change the Eircode once issued, however, if an issue is raised regarding an Eircode it will be reviewed against the Code of Practice.

Contact Information

Contact our Customer Account Management team if you would like more information, email sales@eircode.ie

Your Comments on This Guide

If you have any comments on this Eircode Address File Product Guide Edition 2, Version 2 we would be pleased to hear from you. Email your feedback to sales@eircode.ie and type 'ECAF Product Guide enquiry' in the subject line.

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