SLOVENSKI STANDARD
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Poġtne storitve ï Avtomatsko usmerjanje poġtnih poġiljk - Identifikacijske oznaļ be na prednji strani

Postal services - Automated processing of mail items - Facing identification marks

Postalische Dienstleistungen - Automatische Bearbeitung von Postsendungen - Aufstellkennzeichnungen

Services postaux - Traitement automatique des envois postaux - Marques d'identification de redressement

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English version

Postal services – Automated processing of mail items – Facing identification marks

This Technical Specification (CEN/TS) was approved by CEN on 16 October 2002 for provisional application.

The period of validity of this CEN/TS is limited initially to three years. After two years the members of CEN will be requested to submit their comments, particularly on the question whether the CEN/TS can be converted into a European Standard.

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Foreword

This document (CEN/TS 14442:2003) has been prepared by Technical Committee CEN /TC 331 "Postal services", the secretariat of which is held by NEN.

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive(s).

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to anounce this European Standard: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Slovakia, Spain, Sweden, Switzerland and the United Kingdom.

This Technical Specification includes a Bibliography.

Introduction

The automated processing of letter mail generally requires that items are oriented in a common way, with the delivery address and eventual postage evidence facing the automated reading device and with the bottom edges aligned[1)]. Mail that is oriented in this way is referred to as being faced.

The majority of business-generated mail is already faced at the time of acceptance into the postal system. This is not the case for mail that is deposited in street or post office collection boxes. Prior to automated sorting, such mail requires facing, either manually or by means of automated facing machines. The facing function is often integrated with other mail preparation functions, such as culling and cancelling[2)].

For facing purposes, some means of detecting both the orientation and the front of the item are required. This is achieved in many different ways, including:

— use of postage stamp features such as serration pattern, image and/or encoding with phosphorescent or fluorescent bars or dots;

— postage meter franking marks printed using fluorescent ink;

— patterns of horizontal or vertical bars, called facing identification marks or FIM's.

A FIM is thus a mark placed on a mail item to assist in facing the item. It is generally applied to the upper right corner of the front [1)] of the mail item. Different FIM patterns may also be used for mail stream separation, for example to distinguish between business reply and normal mail; to distinguish between different mail priorities or even to segregate out particular high-volume mail flows, such as tax returns; bank transfers or charity donations.

FIM's are widely used, though they are not used in every EU country and, in some countries, they are currently used only for manual facing. The FIM's currently in use vary from country to country. Thus for example, Denmark, the Netherlands and the United Kingdom use (different) patterns of vertical bars whilst Austria and Portugal use horizontal bar patterns.

As long as items are mailed only in the country of production, the existence of different FIM's in different countries does not pose any problem. Increasingly, however, it is expected that items, and especially pre-addressed envelopes and business reply mail, will be mailed in other countries.

As illustrated by the following example, this can lead to difficulties in facing. Suppose a company in Austria sends a letter to its customer in the United Kingdom. This letter contains a prepaid envelope for the reply, which will need to be faced and cancelled in the U.K. and then sent to Austria. However the pre-paid envelope will carry an Austrian-post facing identification mark. This will not be recognised by Royal Mail, even though the latter uses FIM's for automated facing. The item will be rejected for manual processing.

As a result of such issues, when a contract to process international business reply (IBRS) mail[3)] has been signed between the postal operators of two countries, the whole process – preparation of the mail, sorting, request for payment to the licensee and sharing of this payment between the operators – needs to be done manually. To mechanise this process an international FIM mark would be needed. This would allow IBRS mail to be segregated, sorted by destination country, automatically counted and accounted between the two postal operators involved.

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1) For letter mail items, UPU standard S19 defines the Front, or Face ; the Reverse and the Bottom edge. It also defines a number of encoding areas, which will include the area for printing FIMs.

2) Culling involves the separation, from the mail stream, of items which are too large, too thick, too flimsy or too rigid to pass through subsequent sortation equipment ; cancellation is the process of applying postmarks to prevent fraudulent re-use of evidence of payment and to record the date and location of initial processing.

3) The UPU has defined an International Business Reply Service (IBRS), but this makes no mention of the use of FIM's ; is clearly oriented towards manual processing and is limited to a single class of service.

The use of similar FIM's could, however, lead to misrouting in cases in which the facing mark is also used for mail-stream segregation. For example, PTT Post in the Netherlands uses FIM's on pre-addressed envelopes to segregate mail containing Postbank Giro transfers from other mail. The items so segregated are delivered directly to the Postbank Giro centre without further processing. This does not pose a problem as long as the items are not posted in a country with a similar FIM mark specification. But if, say, France, were to introduce a similar FIM and to use it to segregate tax returns, the result would be that Dutch Postbank Giro transfers posted in France would be routed to the French tax office, whilst French tax returns posted in the Netherlands would be routed to the Dutch Postbank!

There is therefore a need for a well-defined standard FIM mark, which could be used by all posts, together with appropriate rules and procedures for its use for mail-stream segregation purposes. This would ensure that (new) FIM's, designed in accordance with the standard, would be widely recognised and not result in misrouting of FIM-marked mail.

This Technical Specification is designed to meet the above need. It uses horizontal bars in order to minimise the risk of confusion with existing FIM marks, most of which use a vertical bar pattern[4)]. This ensures that those posts that have already implemented FIMs can continue to use their existing systems for domestic purposes.

4) The FIMs used in Austria and Portugal also use a horizontal bar pattern, but the characteristics of these are such that there should be little risk of their being confused with FIMs printed in accordance with this Technical Specification.

1 Scope

The purpose of this Technical Specification is to define a facing identification mark (FIM), with procedures for its use, which can be used by any postal operator. It is primarily addressed to those postal operators that have not yet implemented the use of FIMs for automated facing and has been designed to minimise conflict with FIM marks that are already in use. Nevertheless, operators with existing FIMs are encouraged to consider support for migration to this Technical Specification as and when they upgrade or replace facing equipment.

Use of the standard FIM offers the possibility for automated preparation of letters which do not carry a stamp and which arrive, in a postal facility, without being faced. These items can them be included in the domestic and international mechanised streams of mail.

This Technical Specification allows facer-cancellers and culler-facer-cancellers (or other automated equipment supporting the mail preparation function), to detect bar code-type marks enabling those machines to face and cancel items carrying the FIM. Through the incorporation of a coded value, called the FIM-code, this Technical Specification also supports segregation of FIM-marked items into up to 18 separate streams. This capability can be used to facilitate revenue control by allowing items to be segregated according the type of revenue control procedure required. For example, Business Reply items could be separated and allow accounting and cancellation to take place before, rather than after, the items are transported to their delivery office. This would simplify controls designed to prevent the sending of business reply items to addresses in other countries. However, it should be recognized that FIMs have no in-built security and an item may carry an inappropriate FIM code, resulting in it being placed in the wrong processing stream. Hence, in particular, the FIM alone cannot be relied upon as providing evidence of payment.

The scope of this Technical Specification includes, but is not limited to:

— postal services mail;

— government mail;

— franked mail[5)];

— postcards and envelopes with pre-printed evidence of postage paid;

— mail carrying automated teller machine (ATM) printed stamps;

— business reply mail.

This Technical Specification has been designed to be compatible with and may thus also be applied to international business reply mail which is compliant with the UPU International Business Reply Service (IBRS).

This Technical Specification may also be advantageously applied to items carrying digital postage marks (DPM's) in accordance with UPU standards S28 and S25. Though the two symbologies supported by UPU standard S28 (Data Matrix and PDF417) have characteristics which are easily recognised by image processing equipment and can be used, as facing marks, by mail preparation equipment with an image processing capability, there may nevertheless be advantages in the use of a separate FIM. This would allow facing of the mail using inexpensive equipment prior to its being processed by equipment with full image processing capability. The FIM could even be used to segregate mail carrying a DPM, avoiding the need to pass other mail through DPM-reading equipment.

It could occur that the FIM is present on items that are already faced. In this case, the FIM is largely redundant, but could still be used, if appropriate, for mail stream segregation purposes. Equally, customers may apply stamps to items that carry a FIM, for example because (additional) postage has to be paid. In case an item carries both a FIM and a stamp, the stamp should normally be given priority.

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5) i.e. mail carrying postage meter franking marks.

2 Normative references

This Technical Specification incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text, and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this Technical Specification only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies (including amendments).

ISO 1831:1980, *Printing specifications for optical character recognition*

UPU Technical Standards Manual S31, *UPU Issuing Agency – Assignment of Issuer Codes*

UPU Technical Standards Manual[6] S19, *Encoding on Envelopes – Placement Area Definitions*

3 Terms and definitions

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

3.1
digital postage mark (DPM)
postmark, containing information that may be captured and used by mail handling organisations and the recipient, having three distinct features:

a) the information content is expressed in the form of a message, containing internationally standardised data constructs;

b) the message is represented on the postal item in the form of one or more machine readable symbols;

c) the accuracy of data capture from the symbols is enhanced by the inclusion of error detection and correction data.

NOTE See UPU standard S36 for further information.

3.2
faced
descriptive term applied to postal items which have been placed in landscape orientation

3.3
facing
operation whereby postal items become **faced**

3.4
facing identification mark (FIM)
mark, applied to postal items, to assist in their facing

3.5
FIM-code
bar code defined in 6.2

3.6
landscape orientation
see UPU standard S19

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6) The Technical Standards Manual of the « Union Postale Universelle » is available on subscription; it is updated four times a year. Information can be obtained on the Web site : http://postinfo.upu.org.

3.7
quiet zone
area of a postal item surrounding the **facing identification mark** that is free and clear of printing

4 Symbols and abbreviations

For the purposes of this Technical Specification, the following symbols and abbreviations apply:

DPM see digital postage mark

FIM see facing identification mark

IBRS International Business Reply Service

MRD minimum bar-space reflectance difference; the difference in reflectivity between the lightest bar and the darkest space

R_B bar reflectance

R_E reflectance of a single element

R_S space reflectance

5 FIM functions

The main function of the FIM is to allow postal items to be faced and cancelled by automated mail preparation equipment. In addition, the FIM is designed to allow the mail stream to be segregated into up to 18 postal classes. The following classes are generic:

— B: pre-paid priority;

— C: pre-paid non-priority;

— D: items carrying a digital postage mark (DPM) Class 1;

— F: items carrying a digital postage mark (DPM) Class 2;

— G: business reply Class 1;

— H: business reply Class 2;

— J: international business reply service (IBRS);

— K: non-prepaid (picture) Postcards[7)];

— L: pre-paid Postcards;

— M, N and P are reserved for future allocation.

Classes Q, R, S, T, V and W are available for domestic use. Their interpretation can be freely defined by individual postal operators. However, it may not be assumed that an item carrying a particular FIM-code value corresponds with the processing operator's definition for that value: it may have been produced in accordance with the

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7) In this case, the item would carry a stamp (or other evidence of payment) **in addition** to the FIM. The purpose of the FIM is to allow the items to be recognised as postcards (and/or segregated into a separate stream) where this is required to prevent damage to the picture side of the postcard (e.g. to avoid its overprinting by visible bar codes).

specification and code-list of another operator. To reduce the incidence of this, it is strongly recommended that mail items carrying a non-generic FIM-code should carry the human readable message “This envelope is intended for posting in < name of operator > collection boxes only” or a suitable equivalent. Even so, although the operator-specific FIM-code values can be used for an initial mail-stream separation, the licensing operator’s identification code (printed in OCR characters as part of the FIM) shall be checked if non-generic FIM-codes are to be used for routing purposes.

6 Definition of the FIM and FIM-code

6.1 Introduction

The FIM is composed of a constant series of 5 horizontal bars, accompanied by an OCR-readable identification of the licensing postal operator and FIM-code, all surrounded by a quiet zone. Bars are nominally 10 mm long and 0,9 mm thick and are printed at a pitch of nominally 2,2 mm.

The FIM and its coding have been designed to be easily and reliably read by low-cost detectors. It is believed that many existing detectors should be capable of adaptation to read the FIM-code through simple software changes.

6.2 Encoding of the FIM-code as a five bar code

The FIM-code is encoded by varying the position of three of the five bars in the FIM in accordance with the following table (Table 1). The two bars in position 1, the bottom, and position 8, the top, are found in all 18 valid code combinations.

Table 1 — Coding of FIM values

FIM-code	B	C	D	F	G	H	J	K	L	M	N	P	Q	R	S	T	V	W
Position 8	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Position 7		X	X		X	X		X	X							X	X	X
Position 6	X		X	X		X	X		X				X	X	X			
Position 5	X	X		X	X		X	X		X	X	X						
Position 4							X	X	X		X	X		X	X		X	X
Position 3				X	X	X				X		X	X		X	X		X
Position 2	X	X	X							X	X		X	X		X	X	
Position 1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

Detection of errors (missing bars) is possible because the encoding is made with a constant number of five bars. This code, without symmetry, provides 18 possibilities, with associated values chosen from B to W, without vowels (E, I, O and U). All the values as represented in Figure 1 have constant height for each set of five bars.