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Information technology — Unique identification of transport units —

Part 1: General

Technologies de l'information — Identification unique des unités de transport —

Partie 1: Généralités

Reference number
ISO/IEC 15459-1:1999(E)

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Foreword

ISO (the International Organization for Standardization) and IEC (the International Electrotechnical Commission) form the specialized system for worldwide standardization. National bodies that are members of ISO or IEC participate in the development of International Standards through technical committees established by the respective organization to deal with particular fields of technical activity. ISO and IEC technical committees collaborate in fields of mutual interest. Other international organizations, governmental and non-governmental, in liaison with ISO and IEC, also take part in the work.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 3.

In the field of information technology, ISO and IEC have established a joint technical committee, ISO/IEC JTC 1. Draft International Standards adopted by the joint technical committee are circulated to national bodies for voting. Publication as an International Standard requires approval by at least 75 % of the national bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this part of ISO/IEC 15459 may be the subject of patent rights. ISO and IEC shall not be held responsible for identifying any or all such patent rights.

International Standard ISO/IEC 15459-1 was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 31, *Automatic identification and data capture techniques*.

ISO/IEC 15459 consists of the following parts, under the general title *Information technology — Unique identification of transport units*:

— *Part 1: General*

— *Part 2: Registration procedures*

Annexes A and B of this part of ISO/IEC 15459 are for information only.

Introduction

Transport units are often handled by several parties - the sender, the receiver, one or more carriers, customs authorities, etc. Each of these parties needs to identify the unit so that reference can be made to associated information such as address, order number, contents of the unit, weight, sender, etc.

The information is often held on computer systems, and may be exchanged between parties involved via EDI (Electronic Data Interchange).

There are considerable benefits if the identity of the unit is represented in bar code format, or other ADC media, and attached to the unit so that:

- it can be read electronically, thus minimising errors
- one identity can be used by all parties
- each party can use the identity to look up its computer files to find the data associated with the unit
- the identify code is unique and cannot appear on any other item during the lifetime of the unit.

The unique identifier for transport units defined in this part of ISO/IEC 15459 and represented in a bar code label, or using other ADC media, attached to the transport unit meets these needs. The transport label defined in ISO/IEC 15394 defines the bar code label which should be used for this.

All ADC technologies have the potential to encode the license plate number. It is expected that application standards for transport units, using RFID technologies, will be developed based upon the license plate number.

Information technology — Unique identification of transport units —

Part 1: General

1 Scope

This part of ISO/IEC 15459

- specifies a unique, non-significant, number for transport units, represented in a bar code label or other ADC media attached to the transport unit to meet these needs, and known as the license plate number.

2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this part of ISO/IEC 15459. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this part of ISO/IEC 15459 are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. For undated references, the latest edition of the normative document referred to applies. Members of ISO and IEC maintain registers of currently valid International Standards.

ISO 15459-2,	*Information technology — Unique identification of transport units — Part 2: Registration procedures.*
ISO 15394,	*Packaging — Bar code and two-dimensional symbols for shipping transport and receiving labels.*
ISO/IEC 646,	*Information technology — ISO 7-bit coded character set for information interchange.*
CEN EN 1556,	*Bar coding — Terminology.*

3 Definitions

For the purposes of this part of ISO/IEC 15459, the definitions given in CEN EN 1556 apply.

4 The license plate

A license plate is assigned to a transport unit by its issuer. Any license plate issuer shall be authorised by an issuing agency in accordance with the rules set up by that agency and ISO/IEC 15459-2. Issuing agencies are authorised and registered by the Registration Authority.

A license plate number:

a) shall start with a string of characters, the issuing agency code (IAC), assigned to the issuing agency by the Registration Authority;
b) shall conform to a format specified by the issuing agency;
c) shall be unique in the sense that no issuer re-issues a number until a sufficient period of time has passed so that the first number has ceased to be of significance to any user responsible to the issuing agency;
d) shall contain only numeric and upper case alphabetic characters drawn from ISO/IEC 646 (not including lower case characters or punctuation marks);
e) shall not contain more than 35 characters;

NOTE: For efficient use within bar coding systems, it is recommended that wherever possible the number of characters be maximum 20. However, any data processing system shall be capable of processing numbers of 35 characters (i.e. the maximum allowable in EDIFACT).

Annex A

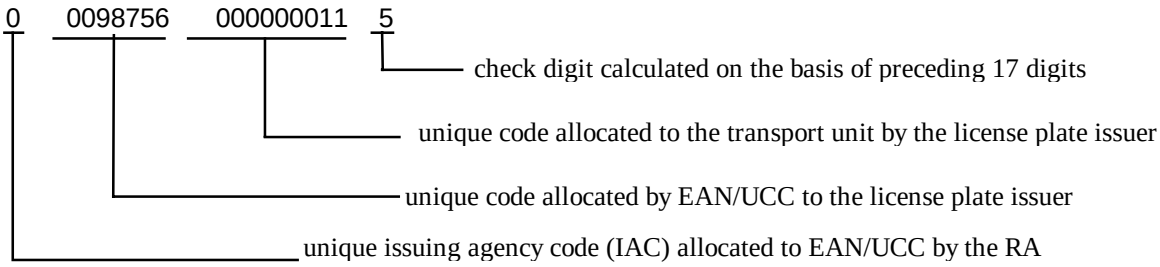
(informative)

Uniqueness

To illustrate the uniqueness of a license plate number, assume that two issuing agencies (IAs) are recognised by the Registration Authority (RA), say EAN/UCC and the Universal Postal Union (UPU).

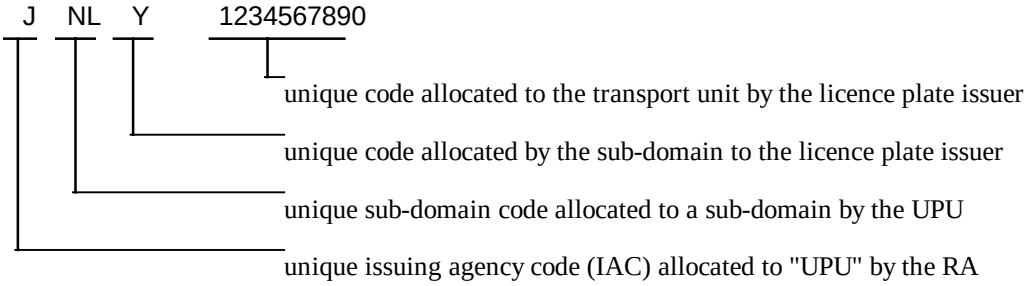
The rules of EAN/UCC require that the license plate number consists of 18 numeric characters where the first character (0, 1, 2...9) is allocated by the RA, the next characters are allocated by EAN/UCC to the license plate issuer and the following characters assigned by the license plate issuer. The last character is a check digit calculated on the basis of the preceding 17 digits. See Figure B.1.

EXAMPLE 1: Typical license plate number issued under the rules of EAN/UCC:



The rules of the UPU are that the license plate number consists of no more than 35 alpha-numeric characters (see clause 4), where the first character is the Issuing Agency Code "J" allocated by the RA to the UPU. The next characters are allocated by the UPU to create and identify a sub-domain. A number of different structures are defined in the relevant UPU Standards. One of these utilises two-character ISO 3166 Country Codes to create sub-domains for the National Postal Administration in each country. This 'Postal Administration Identifier' is followed by a free format zone in which each Postal Administration may define their own structure as long as the structure is in compliance with the framework of this Standard. See Figure B.2.

EXAMPLE 2: Typical license plate number issued under the rules of “UPU”:



Thus the license plate number established by the license plate issuer cannot be the same as that established by another. Moreover, ISO/IEC 15459-2 ensures all license plate numbers are unique.

Annex B

(informative)

Examples of a license plate

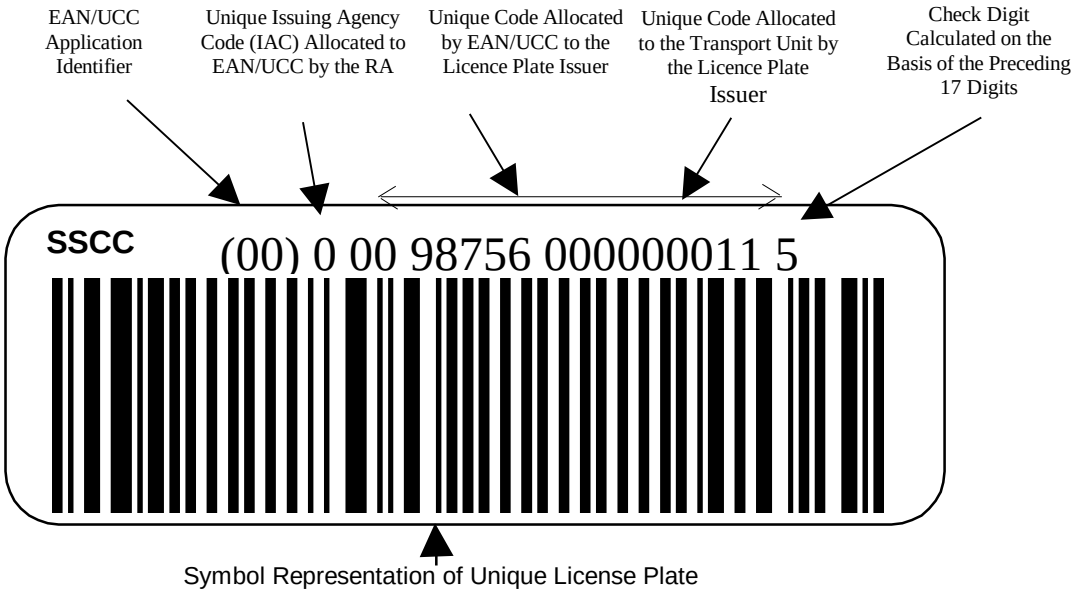


Figure B.1 — Unique identification (license plate) in the EAN/UCC-128 bar code symbology with the EAN/UCC Application Identifier "00" and human readable interpretation

The bar code above, when scanned, would be expected to pass the following data string to the computer system:

]C1	**00**	**000987560000000115**
symbology identifier	EAN/UCC Application Identifier	unique license plate number

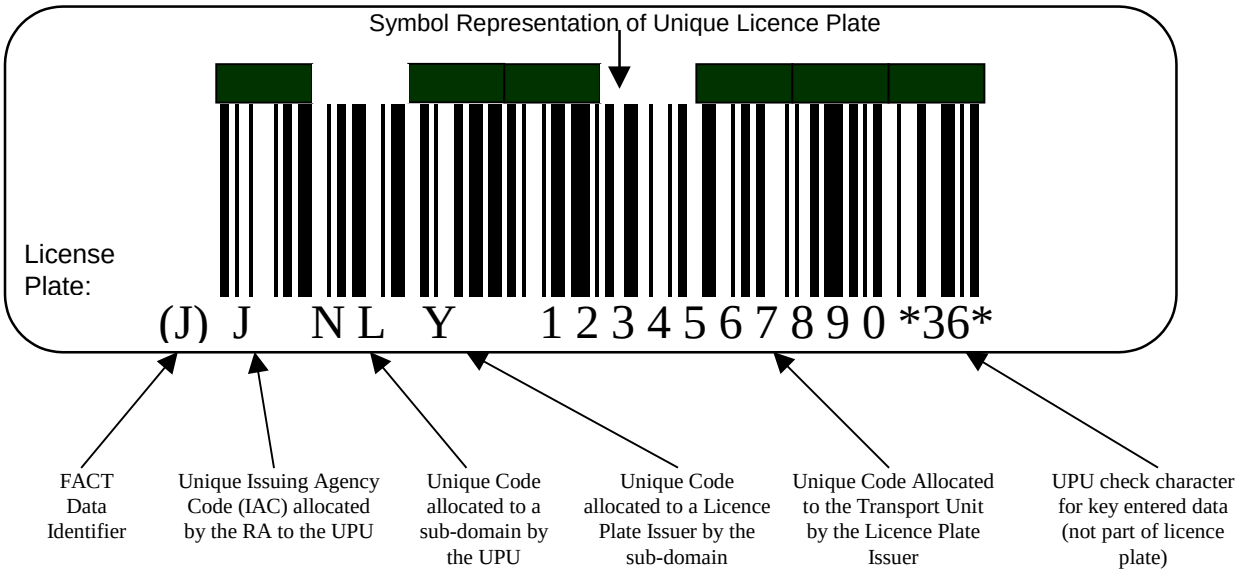


Figure B.2 — Unique identification (license plate) in Code 128 bar code symbology with the FACT Data Identifier "J" and human readable interpretation

The bar code above, when scanned, would be expected to pass the following data string to the computer system:

]C0	**J**	**JNLY1234567890**
symbology identifier	FACT Data Identifier	unique license plate number

ICS 35.040

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