



Technical Report

ISO/IEC TR 2375

Information technology – Registered escape sequences and coded character sets

*Technologies de l'information — Séquences d'échappement et
jeux de caractères codés enregistrés*

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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.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of document should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives or www.iec.ch/members_experts/refdocs).

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This document was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 2, *Coded character sets*.

This first edition cancels and replaces ISO/IEC 2375:2003, which has been technically revised.

The main changes are as follows:

- removal of the registration procedure specification due to the cancellation of the Registration Authority;
- inclusion of the registered data published by the former Registration Authority.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html and www.iec.ch/national-committees.

Introduction

ISO/IEC 2022 uses the escape sequence to control the code extension procedures. The International Register defined by ISO/IEC 2375 (previous edition of this document) provided the escape sequences and character sets.

Since no new escape sequences have been registered since 2004, and no new organization was found to take over the registration authority as of 2020, ISO/IEC JTC1 / SC2 decided to replace ISO/IEC 2375 with ISO/IEC TR 2375 (this document), which contains the data provided by the former registration authority, to ensure interoperability with archival digital data encoded by ISO/IEC 2022. This document and electronic attachments replace the International Register.

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Information technology – Registered escape sequences and coded character sets

1 Scope

This document provides the escape sequences and coded character sets that were registered and published by the former registration authority in ISO/IEC 2375 (the previous edition of this document).

2 Normative references

There are no normative references in this document.

3 Terms and definitions

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

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <https://www.electropedia.org/>

3.1 bit combination

ordered set of bits used for the representation of characters

3.2 byte

8-bit string that is operated upon as a unit

3.3 catalogue

list of the registrations and supplementary data, with reference to their locations

3.4 character

member of a set of elements used for the organization, control, or representation of data

3.5 coded character set

set of unambiguous rules that establishes a character set and the relationship between the characters of the set and their coded representation

3.6 code position

part of a code table identified by its column and row coordinates

3.7 code table

table showing the characters allocated to each bit combination in a code

3.8 combining character

member of an identified subset of the coded character set intended for combination either

- a) with the preceding non-combining graphic character, or with a sequence of combining characters preceded by a non-combining character (as presented in ISO/IEC 10646), or
- b) with the following non-combining graphic character, or with a sequence of combining characters followed by a non-combining character (as presented in ISO/IEC 6937)

3.9

combining sequence

sequence of graphic characters consisting of either

- a) a non-combining character followed by one or more combining characters (as presented in ISO/IEC 10646), or
- b) a non-combining character preceded by one or more combining characters (as presented in ISO/IEC 6937)

3.10

control function

action that affects the recording, processing, transmission, or interpretation of data, and that has a coded representation consisting of one or more bit-combinations

3.11

escape sequence

string of bit combinations that is used for control purposes in code extension procedures

Note 1 to entry: The first of these bit combinations represents the control function ESCAPE.

3.12

ESC F_s sequence

escape sequence with the second bit combination in the range 6/0 to 7/14

Note 1 to entry: ESC F_s sequences are used for the standardized single control functions.

3.13

former registration authority

organization designated by ISO that ensured the maintenance of the registry of the escape sequence, character set, and the mapping tables defined by ISO/IEC 2375:2003 (the previous edition of this document)

3.14

graphic character

character, other than a control function, that has a visual representation normally handwritten, printed, or displayed, and that has a coded representation consisting of one or more bit-combinations

3.15

International Register

register of the coded character sets and the escape sequences in ISO/IEC 2022

Note 1 to entry: In this document, this International Register means the archive of the former International Register (from ISO/IEC 2375, now withdrawn and for which the registration mechanism is no longer available), which is now provided in electronic attachment in this document.

3.16

octet

ordered sequence of eight bits considered as a unit

3.17

repertoire

specified set of characters that are each represented by one or more bit-combinations of a coded character set

Note 1 to entry: A registration does not specify the repertoire of the sequences obtained by combining the characters (see [A.3](#)).

3.18

standard return

escape sequence to switch the coding system to the ISO/IEC 646 character set under the ISO/IEC 2022 coding system, i.e. “ESC 2/5 4/0”

Note 1 to entry: Standard return fits the DESIGNATE OTHER CODING SYSTEM specified in ISO/IEC 2022:1994, 15.4.

4 International Register

4.1 Purpose of the International Register

The International Register provides the catalogue of the registered character set standards with their registration numbers, the names of the character set standards, and their final bytes (for the definition of final bytes, see ISO/IEC 2022:1994, 4.14). The catalogue includes hyperlinks to the electronic document for each registration, which is preserved in the International Register.

Registration of the graphic character sets and the control character sets consists of three parts: a cover page, a code table, and a list of character names. Registration of the coding systems not in conformance with ISO/IEC 2022 has a cover page, and a description text of the coding system, but can lack both a code table and a list of character names.

4.2 Location of the International Register

The International Register can be found at

<https://standards.iso.org/iso-iec/tr/2375/ed-1/en>

4.3 Machine readability

The electronic data in the International Register were primarily produced for printing, while some data were based on scanned images which were image data and not machine-readable text. In the case that registration has the mapping table to ISO/IEC 10646, it is in machine-readable format (see an example in [Annex E](#)).

4.4 Catalogue

4.4.1 Structure of the catalogue

The catalogue classifies the registered character set standards into nine types under three main categories. The top category is determined by the types of the character defined by ISO/IEC 2022 the graphic character (see ISO/IEC 2022:1994, 4.15), the control character (see ISO/IEC 2022:1994, 4.9), and the coding systems not in conformance with ISO/IEC 2022 (see [B.1](#)).

a) Graphic character sets

ISO/IEC 2022 specifies three types of coded graphic character sets (see ISO/IEC 2022:1994, 6.3.1):

- “94-character set”;
- “96-character set”;
- “multiple-byte set”.

The International Register has two subtypes under “94-character graphic character set”, which are distinguished by the length of their intermediate bytes (see ISO/IEC 2022:1994, 4.14):

- “94-character graphic character sets” with one intermediate byte;
- “94-character graphic character sets” with two intermediate bytes.

Hence, the graphic character sets in the International Register fall into four types:

- 94-character graphic character sets with one intermediate byte;
- 94-character graphic character sets with two intermediate bytes;
- 96-character graphic character sets;

NOTE 1 The escape sequences for this type use one intermediate byte.

- multiple byte graphic character sets.

NOTE 2 The escape sequences for this type use two intermediate bytes.

b) Control character sets

ISO/IEC 2022 specifies two types of “sets of control functions”:

- the primary sets of coded control functions (CO) (see ISO/IEC 2022:1994, 6.4.1 and 6.4.4);
- the supplementary sets of coded control functions (CI) (see ISO/IEC 2022:1994, 6.4.2 and 6.4.4);

In addition to these two types, ISO/IEC 2022 specifies the “coded single additional control functions” (see ISO/IEC 2022:1994, 6.5). Hence, the International Register has three types of character sets for CO, CI, and single control functions. The former registration authority considered the criteria in [Annex C](#) for the registration of ESC Fs (standardized single control function, defined in ISO/IEC 2022:1994, 13.2.1).

- C0-Control Character Sets
- C1-Control Character Sets
- Single Control Functions

NOTE The escape sequences for all three of these types use no intermediate bytes.

c) Coding Systems not in conformance with ISO/IEC 2022

The International Register includes some registrations of coding systems not in conformance with ISO/IEC 2022. The registrations are classified into two types according to whether or not the coding system can be switched to the ISO/IEC 2022 coding system by standard return:

- Coding systems with standard return;
- Coding systems without standard return.

NOTE The escape sequences for these two types use two intermediate bytes.

4.4.2 Registration number

A registration number was assigned by the former registration authority to each application for registration in the form of a single positive integer (e.g. 1, 2, 4) or two positive integers concatenated by a hyphen (e.g. 8-1, 8-2) in the case that the registration consists of multiple sets (see [B.3](#)).

In the case that an application was withdrawn or rejected, the registration number was not reused for other applications. Consequently, there are some numbers in the International Register that were never registered (e.g. 210 to 225).

4.5 Contents in a registration

4.5.1 Copyright of the content

In some registrations, the code table or the list of character names were reproduced from copyrighted material. The registrations in the archive are reproduced from the former registration authority, which obtained the copyrights to reproduce them through the sponsoring authority.

4.5.2 Cover page

The cover page contains the following information:

- the type of the character set (4.4);
- the registration number (4.4.2);
- the date of registration;
- the escape sequences (4.5.4);
- the name of the character set;
- the description of the character set;
- the sponsoring authority (4.5.5);
- the origin of the character set (4.5.6).

In addition, the cover page can contain the following information:

- the owner of origin (4.5.7);
- the copyright owner (4.5.8);
- the field of utilization.

Whether each information was provided by the sponsoring authority or the former registration authority is described in A.1. <https://standards.iteh.ai/catalog/standards/iso/194cf505-aa5c-4041-8107-9afc27669dab/iso-iec-tr-2375-2024>

4.5.3 Format of registration number on the cover page

On the cover page, the registration number is shown by three digits with zero padding. In the case that the registration number consists of two numbers, the first major number is shown by three digits with zero padding, but the second number is shown without zero padding.

4.5.4 Escape sequences

The escape sequences were assigned by the former registration authority. After the assignment of the escape sequence, it was never reallocated for another registration, even when the original registration was withdrawn.

4.5.5 Sponsoring authority

The sponsoring authority was the organization that submitted applications concerning the meanings of escape sequences to the former registration authority. The sponsoring authority obtained copyright permission from the copyright owner so that the former registration authority reproduced the publication that specified the coded character set in the International Register. If the registration was intended for a particular application, the sponsoring authority obtained the endorsement of the developer of that application to register the coded character set.