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**Information technology — Font  
information interchange — Registered  
glyph identifiers**

*Technologies de l'information — Échange d'informations sur les  
fontes — Identifiants de glyphes 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](http://www.iso.org/directives)).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO and IEC shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see [www.iso.org/patents](http://www.iso.org/patents)) or the IEC list of patent declarations received (see [patents.iec.ch](http://patents.iec.ch)).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see [www.iso.org/iso/foreword.html](http://www.iso.org/iso/foreword.html).

This document was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 34, *Document description and processing languages*.

This first edition of ISO/IEC TR 10036 cancels and replaces ISO/IEC 10036:1996.

The main changes compared to ISO/IEC 10036:1996 are as follows:

- removal of the registration procedure specification due to the retirement of the registration authority;
- inclusion of the glyph registry 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](http://www.iso.org/members.html).

## Introduction

In some applications and use-cases of font information interchange, especially among CJK script users, font producers or users need to make fine distinctions between presentation forms of the same character for use in different contexts. In the past, because fonts generally use character encodings to identify presentation forms, this has caused significant use of Private Use Area (PUA) code points to represent alternative presentation forms, arguably an unorthodox extension of the use of character encoding to include glyph encoding.

For glyph information interchange required by font format specifications (such as ISO/IEC 9541 (all parts) and the page description language ISO/IEC 10180), JTC 1/SC 18 (predecessor of JTC 1/SC 34) had defined a procedure for registration of glyph identifiers. This procedure was standardized as ISO/IEC 10036. Management of the registry was originally outsourced to AFII (Association of Font Information Interchange), then to GLOCOM (Global COMMunication Center, at the International University of Japan). Registry maintenance by GLOCOM continued until 2018. Some standards developed outside JTC 1/SC 34 have referred to AFII identifiers (for example, TrueType Reference Manual<sup>[5]</sup>), or have referred to ISO/IEC 10036 in order to distinguish the concepts of a character and a glyph (for example, ISO/IEC TR 15285). Some technical notes<sup>[6][7][8]</sup> recommend using the glyph identifiers in the ISO/IEC 10036 registry, instead of using PUA code point.

In 2019 JTC 1/SC 34 decided to terminate the procedure for the registration of glyph identifiers. The purpose of this document is to ensure the availability for archival purposes of glyph identifiers that have already been registered.

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# Information technology — Font information interchange — Registered glyph identifiers

## 1 Scope

This document provides the glyph identifiers and glyph images registered and published by the registration authority for ISO/IEC 10036:1996.

## 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 terminological databases for use in standardization at the following addresses:

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

### 3.1

#### **font-related object**

entity for identification of font or glyph information in global interchange

Note 1 to entry: Font-related objects are described in ISO/IEC 9541 (all parts), or other ISO/IEC standards.

### 3.2

#### **glyph identifier**

sequential integer number assigned to the set of the glyph image, *font-related object* (3.1) and other related information

### 3.3

#### **register**

formal or official recording of items, names, or actions

### 3.4

#### **registration authority**

organization nominated and appointed by ISO/IEC Council to *register* (3.3) the entities required by the technical standard

Note 1 to entry: In this document, this term means the registration authority for ISO/IEC 10036.

## 4 Glyph table

### 4.1 General

The glyph table showing the pairs of the glyph identifier and glyph image is accessible at the following web address:

<https://standards.iso.org/iso-iec/tr/10036/ed-1/en/GlyphTable.pdf>

### 4.2 Structure of the glyph table

The glyph table displays the glyph identifier and the glyph image for that identifier, as shown in [Figure 1](#). The decimal value above the glyph image is the registered glyph identifier, assigned to the glyph image shown below the number.

There are some identifiers in the database that have no associated glyph image (see, for example, 10367 in [Figure 1](#)). To make it clear that the glyph image is not registered in the database, the table shows "reserved" images under such glyph identifiers.

|       |       |       |       |       |       |       |          |       |       |
|-------|-------|-------|-------|-------|-------|-------|----------|-------|-------|
| 10360 | 10361 | 10362 | 10363 | 10364 | 10365 | 10366 | 10367    | 10368 | 10369 |
|       |       |       |       |       |       |       | Reserved |       |       |

Figure 1 — Example of a row of the glyph table

One page of the glyph table displays 100 sets of glyph identifiers and their associated glyph images, in 10 rows, each row containing 10 glyph identifiers. If none of the glyph identifiers on a given page has an associated glyph image, the page is excluded from the glyph table.

### 4.3 Metrics of the glyph image

The glyph table allocates a square to display the registered glyph image, but the glyph image is not necessarily stretched to fill the square. Also, some proportional glyphs are not centred around a square. [Figure 2](#) shows a sample.

|     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 100 | 101 | 102 | 103 | 104 | 105 | 106 | 107 | 108 | 109 |
| d   | e   | f   | g   | h   | i   | j   | k   | l   | m   |

Figure 2 — Example of how proportional glyphs are presented in the glyph table

Some glyph images have wide surrounding spaces as shown in [Figure 3](#). When these glyph images and their glyph identifiers were registered, the registration authority did not trim the surrounding spaces. In such cases these spaces are not essential parts of the identities of the glyphs.

|       |       |       |       |       |       |       |       |       |       |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 55440 | 55441 | 55442 | 55443 | 55444 | 55445 | 55446 | 55447 | 55448 | 55449 |
|       |       |       |       |       |       |       |       |       |       |

Figure 3 — Example of the glyph images including wide surrounding spaces

Some glyph images for diacritical marks include a dotted circle as shown in [Figure 4](#) (9360-9363, 9369). They are designed to print the code charts of some coded character sets. The glyphs in the normal use-cases are usually pre-composed (like 9368).

|      |      |      |      |      |      |      |      |      |      |
|------|------|------|------|------|------|------|------|------|------|
| 9360 | 9361 | 9362 | 9363 | 9364 | 9365 | 9366 | 9367 | 9368 | 9369 |
|      |      |      |      |      |      |      |      |      |      |

Figure 4 — Example of glyph images that include the dotted circle