INTERNATIONAL STANDARD

ISO/IEC 10036

Second edition
1996-07-15

Information technology — Font information interchange — Procedures for registration of font-related identifiers

Technologies de l'information — Échange d'information de fonte — Procédures d'enregistrement des identificateurs liés à la fonte

Reference number
ISO/IEC 10036:1996(E)

Contents

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.

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.

International Standard ISO/IEC 10036 was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 18, *Document processing and related communication*.

This second edition cancels and replaces the first edition (ISO/IEC 10036:1993), which has been technically revised.

Annex A forms an integral part of this International Standard. Annexes B, C and D are for information only.

Introduction

The use of text processing in an open system for the interchange of documents in both office and publishing environments has prompted the development of an International Standard for the interchange of font resource information. A font resource, as defined by ISO/IEC 9541, includes glyph shape and glyph positioning information for a collection of glyphs. ISO/IEC 9541 provides for the unique identification of font resources, each glyph for which information is provided in a font resource, and the unique identification of the collection of glyphs comprising a font resource.

This International Standard specifies the procedures to be followed by the Registration Authority in preparing, maintaining, and publishing registers of identifiers which identify font-related objects. The purpose of these registers is to provide a common reference source to be used in the creation and interchange of font resources.

The registration process aims to be comprehensive, to assign unique and unambiguous identifiers, and to avoid changes in identifiers over time.

The publication of the registers should promote compatibility in interchange of font resource information and avoid duplication of effort in developing application-oriented font reference information. Registration provides an identifier, but registration should not be regarded as a standardization procedure. Nevertheless, as a matter apart from registration, the registered object may, but need not, be the subject of an international, national, or other standard.

This page intentionally left blank

Information technology — Font information interchange — Procedures for registration of font-related identifiers

1 Scope

This International Standard specifies the procedures to be followed by a Registration Authority in preparing, maintaining, and publishing registers of identifiers which identify font-related objects.

The objective of this International Standard is to provide a single point of contact for registration requests and for users to obtain information about the objet registered (central registration within the registration authority's organization is not required, but a central point of contact is required).

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this International Standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO/IEC 8824-1:1995, *Information technology — Abstract Syntax Notation One (ASN.1): Specification of basic notation.*

ISO 8879:1986, *Information processing — Text and office systems — Standard Generalized Markup Language (SGML).*

ISO/IEC 9070:1991, *Information technology — SGML support facilities — Registration procedures for public text owner identifiers.*

ISO/IEC 9541-1:1991, *Information technology — Font information interchange — Part 1: Architecture.*

ISO/IEC 9541-2:1991, *Information technology — Font information interchange — Part 2: Interchange format.*

ISO/IEC 9541-3:1994, *Information technology — Font information interchange — Part 3: Glyph shape representation.*

ISO/IEC 10180:1995, *Information technology — Processing languages — Standard Page Description Language (SPDL).*

3 Definitions

For the purposes of this International Standard, the following definitions apply.

3.1 applicant: The person or organization requesting registration of a font-related object.

3.2 font-related object: An entity described in ISO/IEC 9541, or other ISO/IEC standards, for identification of font or glyph information in global interchange.

3.3 register: A formal or official recording of items, names, or actions.

3.4 registrar: The person or organization appointed by the Registration Authority, responsible for preparing and maintaining the register(s).

3.5 Registration Authority: An organization nominated and appointed by ISO/IEC Council to register the entities required by the technical standard.

3.6 responsible body: A body, usually the JTC 1 Subcommittee, that wrote the technical standard, or if that body is not in existence any longer, the current body supporting the technical standard.

3.7 syllabary: A list of glyphs, each one representing a syllable. ISO/IEC Council to register the entities required by the technical standard.

3.8 technical standard: A standard that includes the item or items that require an entity (name/value) to be registered.

4 Registration Authority

See annex A.

5 Registration procedure

5.1 Registration requests

Any individual or organization having a need for the assignment and registration of an identifier to identify a font-related object specified in clause 6 shall complete and submit to the registrar the appropriate registration request.

NOTE 1 Sample registration requests are provided in Annex C.

Each registration request shall contain the following information to identify the applicant:

— Contact Name (requesting individual)
— Organization Name (in case of the request by an organization)
— Address (includes street address)
— Telephone Number (plus country and area code)
— Facsimile Number (if available)
— Network Address (if available)

The above information is required by the registrar for response to the registration request and for future correspondence to validate uniqueness of the requested identifier against other existing or future identifiers. The applicant may request that this information not be published in the register.

Additional information, which is specific to the font-related object being registered, shall be provided as described in clause 6. This information may be included in publications of the register and shall be maintained in the register database.

Fees may be charged per registration, or portions of the registration process, to cover registration processing and maintenance of the register database. The levels of such fees are to be agreed upon between the registrar and the Registration Authority. Fees, or a portion thereof, may be waived at the discretion of the registrar.

NOTE 2 Softcopy registration requests with information in a format suitable for use in the register database may reduce the registration costs of the registrar and permit waiving of some portion of the fees.

It is the responsibility of the applicant to ensure that the current request is not a duplicate of another request submitted by their own organization and/or currently contained in a published version of the register(s). Duplicate requests may be subject to a processing fee.

5.2 Application review

Upon receipt of a registration request and required fee, the registrar shall ensure that the required information has been provided and clearly stated. If the registration request is incomplete, or questions of interpretation arise, the registrar shall return the request by mail within two weeks of receipt.

If an identical font-related object exists in the register, the registrar shall record that identifier on the registration request and return the registration request to the applicant (see 5.4 for response time).

A processing fee may be charged for review of the registration request and search of the database.

5.3 Identifier assignment

The primary criterion for registration of any object is uniqueness (each object assigned an identifier in the register should, to the best ability of the registrar, represent a uniquely different object). No subjective rejection of a registration request is permitted.

The registrar may seek the advice of appropriate technical experts before assigning an identifier. When this occurs, the registrar is encouraged to deal with experts sanctioned by national bodies or professional societies where appropriate. Resolution of questions should not be permitted to delay unduly the assignment of an identifier, and operating procedures should be established by the registrar to handle situations where delay or confusion may arise.

The registrar shall not change an assigned identifier once registered. The registrar may revise the identifier's related descriptive information, if such a revision does not impact the application usage of the original registration request.

5.4 Application response

The applicant shall normally be notified of the assigned identifier within six weeks of the receipt of the registration request by the registrar. If the registrar cannot achieve this, the applicant shall be notified of the approximate date of availability.

5.5 Database maintenance

The registrar shall keep a file copy of all applications and responses. The registrar shall also maintain an electronic copy of all information required to print each register using commercially available hardware.

6 Object Registration

The registrar shall maintain registers of identifiers and associatied descriptive information for each type of font-related object for which identifiers are assigned under this International Standard. For each such font-related object registered, the registrar shall assign both a public identifier as defined by ISO/IEC 9070 and an ASN.1 object identifier as defined by ISO/IEC 8824. Each register shall have an associated, globally unique, register name and register number. Each font-related object for which identifiers are assigned, shall be assigned a registration number which is unique within that register. The combination of register name or register number and font-related object number defines the public identifier and ASN.1 object identifier.

The following subclauses specify the register name and number for each type of object registered, and specific registration requirements (identifier value ranges and formats, assignment rules, and list of data elements required to assure identifier uniqueness) for those objects.

6.1 Glyphs

The canonical character string form of the public identifier assigned by this registration procedure shall be:

ISO/IEC 10036/RA//Glyphs::nnnn

where nnnn is the character string representing the sequence of decimal digits beginning with a non-zero digit which represents the registration number 'm' in the range between 1 and 4294967295 inclusive.

The object identifier assigned by this registration procedure shall be:

{ 1 1 10036 1 m }

where 'm' is the registration number in the range between 1 and 4294967295 inclusive.

The technical meaning and representation forms of glyph identifiers are defined in ISO/IEC 9541-1.

6.1.1 Assignment rules

The numeric part of the identifier, the decimal number, shall be assigned so as to satisfy the following conditions, listed in descending order of priority:

a) Each assigned identifier shall be for a glyph distinct from all others in their design-independent shape and their description, with a description that is clear, concise and non-intersecting of others.

b) Identifiers should be assigned in simple relationship to existing international character coding standards. Simple relationship implies that, where reasonable, sequence and glyph description shall be respected.

c) Glyph identifiers which occur together within writing scripts or applications should be grouped together. Where relevant, glyphs should be ordered as they would normally appear within the script, or application.

d) Glyph identifiers should be assigned densely, and with shorter glyph identifiers assigned first; except that identifiers may be left unassigned to allow for future glyph assignments in compliance with the preceding conditions.

6.1.2 Data elements

Each glyph registration request shall include the following information:

— glyph description (should be as complete as possible, including names or titles for the glyph (e.g., related SGML public entity name; see ISO 8879), any significant information about the meaning or intended use

(e.g., initial, medial or final form), and any significant relationships to, or distinctions from, other registered glyphs (e.g., ligatures)),

— script, alphabet, or syllabary the glyph is used with (if any),

— language the glyph is used with (if any),

— application environment the glyph is used with (e.g., math, medical),

— statement of whether the glyph is similar in appearance to other glyphs in the register (provide glyph identifiers),

— statement of whether the glyph is similar in description to other glyphs in the register (provide glyph identifiers),

— statement of whether the glyph is design dependent or design independent (does the shape change with font typeface design changes); if design independent, the example glyph shape provided must represent the only permitted shape, and

— example glyph shape (the provided shape should either be in an ISO/IEC 9541-3 standard font interchange format, or should provide three scannable examples of the shape (72 point glyph shape, 24 point example showing coordinate system with position and escapement points, and 12 point example showing context with six to eight related glyphs of the same writing system)). The shape shall be a sample, design-independent representation, devoid of any design attributes which are not required to define the glyph.

6.2 Glyph collections

The canonical character string form of the public identifier assigned by this registration procedure shall be:

ISO/IEC 10036/RA//Collections::nnnn

where nnnn is the character string representing the sequence of decimal digits beginning with a non-zero digit which represents the registration number 'm' in the range between 1 and 4294967295 inclusive.

The object identifier assigned by this registration procedure shall be:

{ 1 1 10036 2 m }

where 'm' is the registration number in the range between 1 and 4294967295 inclusive.

The technical meaning and representation forms of glyph collection identifiers are defined in ISO/IEC 9541-1.

6.2.1 Assignment rules

The numeric part of the identifier, the decimal number, shall be assigned so as to satisfy the following conditions, listed in descending order of priority:

a) Each assigned identifier shall be for a collection distinct from all others in their set content (unique list of glyph identifiers).

b) Collection identifiers which are related by function or writing system may be grouped together. If an organization requests international registration of multiple collections which had been previously registered locally by their organization, the registrar may assign identifiers which are similarly grouped together.

c) Collection identifiers should be assigned densely, and with shorter glyph identifiers assigned first; except that identifiers may be left unassigned to allow for future assignments in compliance with the preceding conditions.

6.2.2 Data elements

Each glyph collection registration request shall include the following information:

— Glyph collection description (should be as complete as possible, including name or title for the glyph collection, any significant information about the meaning or intended use, and any significant relationships to, or distinctions from, other registered collections),

— script, alphabet, or syllabary the glyph collection is used with (if any),

— language the glyph collection is used with (if any),

— application environment the glyph collection is used with (e.g., math, medical),

— statement whether the glyph collection is similar in content to other collections already in the register (provide glyph collection identifiers), and

— list of ISO/IEC 10036 glyph identifiers making up the collection (see 6.1).

6.3 Font attribute sets

The canonical character string form of the public identifier assigned by this registration procedure shall be:

ISO/IEC 10036/RA//FontAttributeSets::nnnn

where nnnn is the character string representing the sequence of decimal digits beginning with a non-zero digit which represents the registration number 'm' in the range between 1 and 4294967295 inclusive.

The object identifier assigned by this registration procedure shall be:

{ 1 1 10036 3 m }

where 'm' is the registration number in the range between 1 and 4294967295 inclusive.

Font attribute sets are data structures defined in ISO/IEC 9541-2 for use by other standards and architectures in their definition of font references.

6.3.1 Assignment rules

The numeric part of the identifier, the decimal number, shall be assigned densely, and with shorter font attribute set identifiers assigned first.

6.3.2 Data elements

Each font attribute set registration request shall include the following information:

— font attribute set description (should be as complete as possible, including any significant information about the meaning or intended use, and any significant relationships to, or distinctions from, other registered font attribute sets),

— script, alphabet, or syllabary the font attribute set is used with (if any),

— language the font attribute set is used with (if any),

— application environment the font attribute set is used with (e.g., math, medical),

— statement whether the font attribute set is similar in content to other attribute sets already in the register (provide font attribute set identifiers), and

— set of font attributes as defined in ISO/IEC 9541-2, with all attributes being optional.

6.4 Glyph index maps

The canonical character string form of the public identifier assigned by this registration procedure shall be:

ISO/IEC 10036/RA//GlyphIndexMaps::nnnn

where nnnn is the character string representing the sequence of decimal digits beginning with a non-zero digit which represents the registration number 'm' in the range between 1 and 4294967295 inclusive.

The object identifier assigned by this registration procedure shall be:

{ 1 1 10036 4 m }

where 'm' is the registration number in the range between 1 and 4294967295 inclusive.

The technical meaning and representation forms of glyph index maps are defined in ISO/IEC 10180.

6.4.1 Assignment rules

The numeric part of the identifier, the decimal number, shall be assigned densely, and with shorter glyph index map identifiers assigned first.

6.4.2 Data elements

Each glyph index map registration request shall include the following information:

— requested character string name,

— glyph index map description (should be as complete as possible, including any significant information about the meaning or intended use, and any significant relationships to, or distinctions from, other registered glyph index maps),

— script, alphabet, or syllabary the glyph index map is used with (if any),

— language the glyph index map is used with (if any),

— application environment the glyph index map is used with (e.g., math, medical),

— Statement whether the glyph index map is similar in content to other maps already in the register (provide glyph index map identifiers),

— number of index values in the map, and

— list of index numbers and corresponding ISO/IEC 9541-2 glyph structured names or ISO/IEC 10180 glyph identifiers (only one form of the glyph name or identifier is permitted for all entries in the glyph index map).

6.5 ISO/IEC 10180 font reference font specifications

The canonical character string form of the public identifier assigned by this registration procedure shall be:

ISO/IEC 10036/RA//FontRefFontSpecs::nnnn

where nnnn is the character string representing the sequence of decimal digits beginning with a non-zero digit which represents the registration number 'm' in the range between 1 and 4294967295 inclusive.

The object identifier assigned by this registration procedure shall be:

{ 1 1 10036 5 m }

where 'm' is the registration number in the range between 1 and 4294967295 inclusive.

The technical meaning and representation forms of this font-related object are defined in ISO/IEC 10180.

6.5.1 Assignment rules

The numeric part of the identifier, the decimal number, shall be assigned densely, and with shorter font reference font specification identifiers assigned first.

6.5.2 Data elements

Each ISO/IEC 10180 font reference font specification registration request shall include the following information:

— font reference font specification description (should be as complete as possible, including any significant information about the meaning or intended use, and any significant relationships to, or distinctions from, other registered font reference font specifications),

— script, alphabet, or syllabary the font reference font specification is used with (if any),

— language the font reference font specification is used with (if any),

— application environment the font reference font specification is used with (e.g., math, medical),

— statement whether the font reference font specification is similar in content to other specifications already in the register (provide font reference font specification identifiers),

— one ISO/IEC 10180 Font Reference structure element, and

— one ISO/IEC 10180 Glyph Index Map structure element.

Annex A
(normative)

Registration Authority

The Registration Authority for font-related objects approved by the ISO/IEC Council is:

Association for Font Information Interchange
Post Office Box 33683
Northglenn, Colorado 80233-0683

Telephone: +1 303 924-7670
Facsimile: +1 303 451-5475
Email: afii@ix.netcom.com

Annex B
(informative)

Projected Activity Report

B.1 Glyph register

At IS publication the glyph register will contain approximately 15 000 of the world's most commonly used glyphs. The glyphs are being provided to the Registry for printing of the register, free of charge, by the Association for Font Information Interchange (AFII) and supporting font vendors.

At IS publication plus two years, the glyph register will include an additional 40 000 glyphs representing East Asian languages. These glyphs are being provided free of charge by AFII personnel working in conjunction with East Asian countries and participating academic, industry, and government representatives. This base document of 55 000 glyphs is necessary to provide a register of significant contribution to the font standard.

It is projected that additional growth to the register will be approximately 200 glyphs per year.

B.2 Glyph collection register

It is estimated that 50 collections per year will be registered during the first three years after IS status is obtained. Following this initial period of registration, it is projected that the number of requests will decline to a level of about 20 per year.

B.3 Font attribute set register

It is estimated that 20 font attribute sets per year will be registered during the first three years after IS status is obtained. Following this initial period of registration, it is projected that the number of requests will increase to a level of about 50 per year.

B.4 Glyph index map register

It is estimated that 20 glyph index maps per year will be registered during the first three years after IS status is obtained. Following this initial period of registration, it is projected that the number of requests will increase to a level of about 50 per year.

B.5 SPDL font reference font specification register

It is estimated that 20 SPDL font reference font specifications per year will be registered during the first three years after IS status is obtained. Following this initial period of registration, it is projected that the number of requests will increase to a level of about 50 per year.

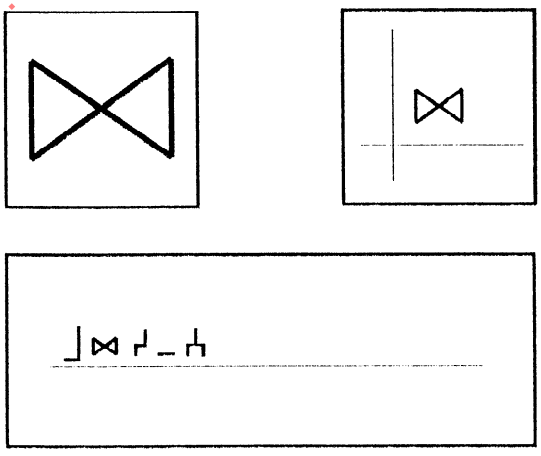
Annex C
(informative)

Sample registration requests

The following clauses provide examples of the registration request for each of the registries of this International Standard. The information is shown in a format that would be suitable for softcopy submission using an ISO/IEC 646 character code set.

C.1 Glyph registration request

Glyph Registration Request
date::August 18, 1994
contact_name::John T. Doe
organization_name::ABC Corporation
address1::111 Anystreet
address2::Anytown, Anystate 99999 USA
telephone::+1 111 222 3333
facsimile::+1 111 222 4444
network_address::johndoe@abc.com
description::OCR A Unique Asterisk, used in Optical Character Recognition (OCR) applications.
abc_gid::SO120000
script::OCR-A
language::OCR-A machine
application::Optical Character Recognition
similar_shape::Glyph ID 61021, rotated 90 degrees
similar_description::Glyph ID 42, Asterisk
design_dependent::No



Signature 357 - General and technical symbols 1

These glyph identifiers are reserved for general and technical symbols.

Some of these symbols, for instance the circle, have a large number of different applications or interpretations (see guides such as Shepherd's Glossary of Graphic Signs and Symbols). Only the most common applications are currently mentioned.

Glyph Identifier	Example Glyph Shape	Glyph Description
.	.	.
.	.	.
.	.	.
61412	|	Thin vertical line
61413	–	Thin horizontal line
61414	+	Thin intersecting lines
.	.	.
.	.	.
.	.	.

Figure C.1 — Example glyph register page

C.2 Glyph collection registration request

Glyph Collection Registration Request
date::August 18, 1994
contact_name::John T. Doe
organization_name::ABC Corporation
address1::111 Anystreet
address2::Anytown, Anystate 99999 USA
telephone::+1 111 222 3333
facsimile::+1 111 222 4444
network_address::johndoe@abc.com
description::ABC Engineering Symbols
abc_sgid::961
script::Latin
language::English
application::Engineering Drawings
similar_content::None

set_size::236
set_content::58, 91, 92, 93, 123, 125, ... 8261, 8262, 8263, 8264, 8422, 8995, ... 15200, 15254, 37245, 37300, 38433, 53221, ...

Registrant: ABC Corporation
Date of Registration: September 9, 1994

Public Identifier: ISO/IEC 10036/RA//Collections::4823

ASN.1 Object Identifier: { 1 1 10036 2 4823 }

Description: ABC Engineering Symbols
Number of Glyph Identifiers: 236

Glyph Identifier	Glyph Identifier	Glyph Identifier
58	8261	15200
91	8262	15254
92	8263	37245
93	8264	37300
123	8422	38433
125	8995	53221
.	.	.
.	.	.
.	.	.

Figure C.2 — Example glyph collection register page

C.3 Font attribute set registration request

SPDL Font Attribute Set Registration Request
date::August 18, 1994
contact_name::John T. Doe
organization_name::ABC Corporation
address2::111 Anystreet
address3::Anytown, Anystate 99999 USA
telephone::+1 111 222 3333
facsimile::+1 111 222 4444
network_address::johndoe@abc.com
description::ABC Latin 1
similar_reference::XYZ Latin 1
fontname::ICD0010/0004//FontName::ABC Latin 1