



**ISO/IEC JTC 1/SC 2/WG 3**  
**7-bit and 8-bit codes and their extension**  
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ISO/IEC JTC 1/SC 2/WG 3

ISO/IEC JTC 1/SC 2/WG 3 *N*  
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<b>Title:</b>	Issues for the revision of ISO 2375
<b>Source:</b>	Joan Aliprand and Edwin Hart (US)
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In reviewing ISO/IEC CD 2375: 1999-11-05, we identified several issues that we believe that WG 3 needs to resolve before further editing of the second CD.

The issues are:

1. Who has ultimate authority over the content of a coded character set?
2. Who has the ultimate authority over the content of a mapping table accompanying a registration application?
3. Should the revision of ISO 2375 reflect the fastpath procedure used by the Registration Authority to register SC 2 standards?
4. At what stage in the standardization process should the Registration Authority be allowed to assign the 2375 escape sequence if the escape sequence needs to be included when the standard is first published?
5. Where do the code table layout templates belong: in the standard or in the *Practice of the Registration Authority*?
6. Are examples of an application for registration and a mapping table needed in the standard?
7. Is it necessary to keep the mapping tables consistent with the current version of ISO/IEC 10646 (including amendments)?
8. Should the Registration Authority be authorized to change registrations to correct errors without consulting the Sponsoring Authority and Owner of Origin?
9. Have the Registration Authority's comments in document SC 2 N 3381 been satisfactorily accommodated?

To prepare for the second CD for 2375, we recommend that WG 3 consider first the document with the reorganized text, then this document (which reflects some National Body comments), and finally the consolidated list of National Body comments.

## ISO/IEC JTC 1/SC 2/WG 3 N 498

### 1. Who has ultimate authority over the content of a coded character set?

The *Committee Draft for the revision of ISO 2375* dated 1999-11-05 says that the Sponsoring Authority has ultimate authority over the content of a coded character set.

Clause 6.5 states:

The Sponsoring Authority is the owner and has ultimate authority over the content of its character sets.

and Note 2 to Clause 8.4 states:

The ultimate right of character identification and mapping, and the ownership of any registered coded character set remains with the Sponsoring Authority.

The statement that the Sponsoring Authority is the owner and has ultimate authority over the content of its character sets applies in only one case: when the Sponsoring Authority submits an application for registration for a coded character set which it developed. For example, the Japanese Industrial Standards Committee (JISC) recently sponsored two applications for registration (Nos. 228 and 229) for planes of Japanese Standard JIS X 0213:2000. JISC was both the Sponsoring Authority *and* the developer of the coded character set.

But who has authority over the content of a coded character set when the Sponsoring Authority and the set's developer are different?

Consider this actual example. The National Standards Authority of Ireland (NSAI) was the Sponsoring Authority for Application for Registration No. 225 (ISO/IEC JTC 1/SC 2 N 3138) for registration of a US standard, ANSI/NISO Z39.47:1993, *Extended Latin Alphabet Coded Character Set for Bibliographic Use*. The ANSI-accredited National Information Standards Organization (NISO), which developed the character set, requested the registration. Who now has authority over the content of this character set: the National Standards Authority of Ireland, or the National Information Standards Organization? Is there any doubt that NISO still retains authority over the content of ANSI/NISO Z39.47, and continues to be responsible for its periodic review and possible revision?

Ultimate authority over the content of a character set ("ownership") belongs not to the Sponsoring Authority but to the body that originated the coded character set. Sometimes, the body that originated a coded character also acts as the Sponsoring Authority, but this does not mean that a Sponsoring Authority has ultimate authority over the content of a coded character set.

A new clause, 8 *Owner of Origin*, in the reorganized text clarifies this:

8.1 The Owner of Origin is the organization or individual responsible for the development of a coded character set.

**8.2 The Owner of Origin has ultimate authority over the content of its coded character sets.**

### *Recommendation*

We recommend that WG3:

1. **Recognize that the Sponsoring Authority is not always the developer of the coded character set which it is sponsoring in an application for registration;**
2. **Confirm the provisions of Clause 8 as stated above.**

## 2. Who has ultimate authority over the content of the mapping table accompanying a registration?

The *Committee Draft for the revision of ISO 2375* dated 1999-11-05 says in the Note 2 to Clause 8.4:

The ultimate right of character identification and mapping, and the ownership of any registered coded character set remains with the Sponsoring Authority.

A Note is, by definition, informative, so there is not yet a normative statement on control of the content of the ISO/IEC 10646 mapping.

Note 2 to Clause 8.4 says three things:

1. The ultimate right of character identification remains with (belongs to) the Sponsoring Authority.
2. The ultimate right of mapping – that is, the determination of ISO/IEC 10646 equivalents -- remains with the Sponsoring Authority.
3. Ownership of any registered coded character set remains with the Sponsoring Authority.

It has been shown in the discussion of the first issue that the third assertion—Ownership of any registered coded character set remains with the Sponsoring Authority—is only true when the Sponsoring Authority is also the developer of the coded character set, and that ultimate ownership of a coded character set, whether registered or not, belongs not to the Sponsoring Authority but to the developer of the coded character set, i.e., to the Owner of Origin. We will now examine the first two assertions of Note 2.

The remaining items of Note 2 reflect the essential requirements for mapping to ISO/IEC 10646:

1. to correctly identify the characters in the source set (the coded character set being registered); and,
2. to correctly identify the ISO/IEC 10646 equivalent for each character in the source set or to determine that there is no equivalent.

*Who has the ultimate right of character identification?*

Note 2 to Clause 8.4 says:

The ultimate right of character identification remains with (belongs to) the Sponsoring Authority.

Consider the case where the Sponsoring Authority and the Owner of Origin are different. As the developer and maintainer of a coded character set, the Owner of Origin may be assumed to have the best knowledge of its contents, and to be familiar with the sources used for the coded character set which may help to identify characters unequivocally. This will generally be the case. The statement that The ultimate right of character identification remains with the Sponsoring Authority is questionable

But will the Owner of Origin always be able to identify characters in older coded character sets unequivocally? If information on the development of older sets (either in working documents or from people responsible for their development) is not available, the Owner of Origin may not be able to supply authoritative information for certain characters.

*Who has the ultimate right to determine ISO/IEC 10646 equivalents?*

Note 2 to Clause 8.4 says:

The ultimate right of mapping – that is, the determination of ISO/IEC 10646 equivalents -- remains with the Sponsoring Authority.

If the Owner of Origin created the ISO/IEC 10646 mapping, there is no reason that the Sponsoring Authority should retain the ultimate right of mapping.

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However, retention of the ultimate right of mapping by any one organization may not always be appropriate, because this does not provide requirements for (1) error correction or (2) reporting of mapping alternatives.

- *Why are mapping tables being exempted from the consensus process?*

Over the years, members of WG3 have proposed new parts of ISO/IEC 8859. Does the national standards body that proposes a new part, and perhaps provides the initial draft, retain ultimate authority over the content of that part? The answer is no, because WG3 uses a consensus process to define the content of standards. Why then are the 2375 mapping tables being exempted from the consensus process that applies to all other aspects of WG3's work?

Although the development of WG3 standards requires a series of formal ballots, this is not envisioned for the mapping tables, since they are not standards. What *is* necessary is a procedure to reach consensus on the correctness of the proposed table: review of the proposal by experts, reporting of errors and/or problems, and resolution of issues.

- *Who is best qualified to do the mapping?*

Determining the appropriate ISO/IEC 10646 equivalents for the characters of the source set calls for a detailed knowledge of the content of ISO/IEC 10646. An Owner of Origin or Sponsoring Authority that actively participates in the work of SC2/WG2 will have the necessary knowledge. Not all Owners of Origin or Sponsoring Authorities will be members of SC2, let alone active participants in the work of SC2/WG2.

However, even when a Sponsoring Authority or Owner of Origin is very familiar with ISO/IEC 10646, the mapping for a particular character may be questionable or in error. NSAI, a P-member of SC2 and very active in the work of SC2/WG2, worked with TC46/SC4/WG1 on mappings that were included in applications for registration for TC46 character sets. The US, when it reviewed the applications, identified a number of errors and problematic mappings.

This is why mapping for a coded character set needs to be established by means of a consensus process, where no single participant has "ultimate authority" over the final mapping. No one person or body is best qualified to define the mapping. By applying the consensus methodology, expert knowledge is shared.

- *Who has ultimate authority over the ISO/IEC 10646 mapping?*

The Registration Authority's procedures for registration could be the model for the ISO/IEC 10646 mapping. The RA is authorized by JTC1 through SC2 to maintain the International Register for ISO 2375 and to manage the execution of the registration procedures. There is no question that the Registration Authority has ultimate authority over registration applications, unless over-ruled upon appeal.

Although the RA has ultimate authority over applications for registration, the RA does not operate in isolation. Applications are circulated to P-members of SC2 for review and comment. This process provides the RA with additional opinions on applications for registrations.

Mapping tables as optional adjuncts to applications for registration.

Since the Registration Authority has ultimate authority over the required parts of an application for registration, logic suggests that the Registration Authority should also be given ultimate authority over any mappings submitted with an application for registration.

Because mapping tables will be used in software, it is critical that errors be detected and corrected, or if there is no definitive "right answer", that alternatives be identified in the registration.

The RA alone cannot be expected to review a mapping table. To facilitate processing, the RA-JAC will assist the RA in an initial examination of the ISO/IEC 10646 mapping. If any errors are found, the RA will request the Sponsoring Authority to correct them before the application for registration is circulated to P-members for review.

***Recommendation***

**We recommend that WG3:**

1. Recognize that the Owner of Origin will normally be best qualified to identify characters in its character sets, but may not be able to do so in all circumstances.
2. Ensure that ISO/IEC 10646 mappings are developed by a consensus process.
3. Confirm that because the ISO/IEC 10646 mapping is part of an application for registration, the Registration Authority has ultimate authority over the mapping and ensure that the Registration Authority be allowed to supplement the mapping table provided in an application with additional mapping information.

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### 3. Should the revision of ISO 2375 reflect the fastpath procedure used by the Registration Authority to register SC 2 standards?

We propose that coded character sets developed by SC2 be explicitly exempted from the requirement that applications for registration be circulated to P-members for review and that the mapping to ISO/IEC 10646 not be subject to review of the RA-JAC.

ISO 2375-1985 (E) specifies in Clause 5 that one of responsibilities of the Registration Authority includes:

to circulate the proposals to the members of the coding sub-committee for a three month information and comment period;

The corresponding clause in the reorganized text is 13.7 (based on Clause 7.5 in the 1<sup>st</sup> CD):

1. *When an application for registration has passed the administrative and technical review, the Registration Authority shall circulate the application to the members of the subcommittee concerned with coded character sets for a three-month information and comment period.*

Although coded character sets developed by SC2 have been registered, the applications for registrations do not appear to have been circulated for review in accordance with Clause 5(d) of ISO 2375-1985 which is currently in effect.

In addition the reorganized text has provisions for reviewing the mapping to 10646 in clause 13.5:

13.5 The Registration Authority shall circulate any registration application with a mapping to ISO/IEC 10646 first to the members of the RA-JAC for a technical review of not more than three months. Clause 14 specifies the review procedure.

Since P-members have reviewed SC2 coded character sets (and mapping to 10646) during the various stages of development and balloting, reviewing them yet again for 2375 registration should be unnecessary.

We propose the addition of an explicit exemption to Clause 13 for coded character sets developed entirely by the ISO/IEC JTC 1 subcommittee concerned with coded character sets (i.e., SC2).

- The exemption would include ISO/IEC 10646 and the parts of ISO/IEC 8859.
- The exemption would not apply to the coded character sets recently transferred to ISO/IEC JTC1/SC2 from ISO/TC46/SC4 because P-members of SC2 cannot be assumed to be familiar with these coded character sets yet.

#### ***Recommendation***

We recommend that WG3 consider the addition of a waiver to Clauses 13.5 and 13.7 of the reorganized text:

13.5 The Registration Authority shall circulate any registration application with a mapping to ISO/IEC 10646 first to the members of the RA-JAC for a technical review of not more than three months. Clause 14 specifies the review procedure. If the application is for a coded character set developed entirely by the subcommittee concerned with coded character sets, this requirement is waived.

13.7 When an application for registration has passed the administrative and technical review, the Registration Authority shall circulate the application to the members of the subcommittee concerned with coded character sets for a three-month information and comment period. If the application is for a coded character set developed entirely by the subcommittee concerned with coded character sets, this requirement is waived.



**4. At what stage in the standardization process should the Registration Authority be allowed to assign the 2375 escape sequence if the escape sequence needs to be included when the standard is first published?**

The concern is that a conflict exists: Current procedures require submission of a published standard in the application, but the publisher of a standard may wish to have the 2375 escape sequence in the standard when it is first published.

The reorganized text of *Committee Draft for the revision of ISO 2375* states in the Introduction:

Nevertheless, as a matter apart from registration the coded character set may, but need not, be the subject of an international, national, or other standard. When such a standard is prepared after the registration of an escape sequence, it would be appropriate to specify the escape sequence identifying the coded character set as part of the standard itself.

When a new coded character set standard is being prepared, this statement suggests that it may be possible to assign the identifying escape sequence to the new character set before completion of balloting and before its official publication. Is this “pre-registration” a desirable action?

Yet bullet two in clause 17.1 in the reorganized text (=clause B.2 in 1<sup>st</sup> CD) implies that the Registration Authority cannot preregister a coded character set standard in anticipation of final approval:

No final character(s) shall be reserved for future registration applications.

SC2 had a good reason for this point: The purpose of registration is to unequivocally identify a particular coded character set. If changes to the coded character set were made after submission of the application for registration but before final publication, what has been registered would not be the same as the final publication. Therefore, the escape sequence would identify a slightly different coded character set. SC2 itself and NSBs with extensive experience in developing coded character sets understand the difficulties for data interchange that such an action would cause, and therefore would make sure the problem did not arise. However, it cannot be assumed that all Sponsoring Authorities will do so.

If WG3 accepts the recommendation for resolving issue 3 (fastpath for registering SC2 standards), then upon approval of a DIS or FDIS ballot, the Registration Authority can immediately register the coded character set and assign the escape sequence so that the escape sequence can be incorporated into the text submitted for publication. (The proposed procedure relies on the current ISO procedure that prohibits making technical changes (i.e., changing the code table or character names) to a DIS or FDIS document. Recall that SC2 standards include a clause to specify the escape sequence and the drafts include a statement to the effect that the escape sequence will be made available at the time of publication.)

For registering standards from organizations outside of ISO and IEC, one way to make the escape sequence available is to publish the escape sequence in an amendment to the standard. This requires no changes to the current registration procedures, and does not delay publication of the standard itself.

To publish the escape sequence as part of the text of a new standard, either (1) publication of the standard would need to be delayed until the RA-JAC and SC 2 member review is completed, or (2) the current procedures would need to be changed to allow registration processing to begin prior to completion of the approval process for the draft standard.

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### ***Recommendation***

**We recommend that WG3:**

- 1. Waive the requirement for JTC1/SC2 to provide a published standard to register it, assign an escape sequence as soon as the standard is approved, and delay publishing the registration until ISO publishes the standard.**
- 2. Allow the Registration Authority to waiver to registration applications for standards developed outside of ISO and IEC and which use a standardization procedure similar to that used by ISO. Under these circumstances, the Registration Authority would accept an application containing the draft of the standard used for the final ballot, submit the application for review, and upon successful completion of the review and a successful ballot, assign an escape sequence, and update the register as soon as the published standard becomes available.**

## 5. Where do the code table layout templates belong: in the standard or in the *Practice of the Registration Authority*?

This addresses two topics:

- Are layout diagrams needed in the standard?
- Providing the most reliable character shapes and character names in the International Register

The Netherlands wrote in its comments on Annex E of the 1<sup>st</sup> CD (a set of diagrams showing the layout of code tables = Annex C of the reorganized text):

**Netherland's comment.** We object to the inclusion of Annex E (normative). This matter has its proper place in a document *Practice of the Registration Authority*".

There was no equivalent for Annex E in ISO 2375-1985. The diagrams appear in the *Practice of the Registration Authority for ISO 2375: 1985* (issued by ECMA, the RA at that time).

In the current reorganized text (based on the 1<sup>st</sup> CD), layout diagrams are covered in two places. Clause 7.2.5 (= Clause A.3 in 1<sup>st</sup> CD) specifies the *Practice of the Registration Authority*. Layout diagrams also appear in Annex C (= Annex E of 1<sup>st</sup> CD). The repertoire of layout diagrams in Annex C (normative) is more limited than the layout diagrams in the ECMA *Practice of the Registration Authority for ISO 2375: 1985* (<http://www.itsci.ipsj.or.jp/ISO-IR/>).

The purpose for specifying layout charts is to facilitate comparison between registrations (Clause A.3 in ISO 2375-1985 and in 1<sup>st</sup> CD Clause A.3 = Clause 7.2.5 in reorganized text). This is particularly important when the Registration Authority is determining whether a coded character set proposed for registration is identical to an already registered set (Clause B.1.6 in ISO 2375-1985 and in 1<sup>st</sup> CD = Clause 15.2 in reorganized text).

The *Practice of the Registration Authority* is outdated and must be revised. This revision is particularly necessary so that this document will conform to the Registration Authority's recommendation in ISO/IEC JTC1 SC2 N 3381

Hexadecimal notation found in new ISO/IEC 8859 series is recommended for new registration which was approved by SC2.

If the standard includes a normative Annex giving layout of code tables, the standard will have to be revised and balloted whenever SC 2 or the Registration Authority decides that a change to a layout is needed. This (a) delays the work of the RA and (b) entails unnecessary balloting by P-members and work for the SC2 Secretariat. This disadvantage more than offsets any advantage that having the layouts in the standard may have. It should not be necessary to repeat layout diagrams in the standard when they are already part of the *Practice of the Registration Authority*.

### *Issue of Character Shapes and Character Names of the Origin*

Recommendation 2-b of the Registration Authority in ISO/IEC JTC1 SC2 N 3381 stated:

Character shapes and character names of the "ORIGIN" should not be changed.

When the layout in the coded character set standard proposed for registration corresponds to a layout specified in the *Practice of the Registration Authority*, the image published in the coded character set standard should be used in the International Register. (Clause 10.2.2.3 in the reorganized text addresses this.)

If the layout in the coded character set standard proposed for registration does not correspond to a layout specified in the *Practice of the Registration Authority*, the Registration Authority must decide whether the layout in the coded character set standard proposed for registration can be used in the International Register or must be redrawn. If a redrawing is required for the International Register, the Owner of Origin must certify that the character shapes and character names in the redrawing are accurate with respect to the coded character set as originally published.

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Example of need for verification by Owner of Origin:

In Application for Registration No, 225 (ISO/IEC JTC1/SC2 N3138), three images in the redrawn code chart do not agree with the images in the coded character set standard as published (ANSI/NISO Z39-47-1993):

- 6/12 *Ligature right half* is misaligned. (ANSI/NISO Z39-47-1993 includes an example of use which shows correct alignment clearly)
- 7/7 *Left hoof* [This is a typo: the correct name is “left hook”.] appears as comma-like diacritic in Application for Registration No, 225, but as a hook in ANSI/NISO Z39-47-1993
- 7/11 *Double tilde right half* is misaligned. (ANSI/NISO Z39-47-1993 includes an example of use which shows correct alignment clearly).

### ***Recommendation***

**We recommend that WG3:**

1. Accommodate The Netherlands’ comment by removing Annex C, “Layout of code tables”;
2. Initiate revision of the *Practice of the Registration Authority* to incorporate the recommendations of Registration Authority which were approved by SC2 in ISO/IEC JTC1 SC2 N 3381.

## 6. Are examples of an application for registration and a mapping table needed in the standard?

The problem with including a specific example of a registration is that there are many different types of character sets but only one particular type is shown in the example. This will confuse users of the standard. Either a complete set of examples should be provided or none. Since the Registration Authority's Web site holds approved registrations and it is accessible by type of character set, the annex showing an example of an application for registration is superfluous. (We also note that Annex G in the 1<sup>st</sup> CD shows a spurious example. Japan, in its comments (J-12 on Annex G), recommended use of a "proven example".)

If the annex showing an example of a registration were removed, the example of a mapping table (Annex E in the reorganized text) should also be removed. Annex E was included in the reorganized text for a parallel example with Annex D, "Example registration", and to give an idea of the content and arrangement of a mapping table.

The primary form of the mapping table (Clause A.4.3 in the reorganized text) is machine-readable data. Full requirements for content and layout of a mapping table file should be specified separately in the *Practice of the Registration Authority*, not as part of the standard. A printed example of the contents of a machine-readable file in the standard is not needed.

### ***Recommendation***

**We recommend that WG3:**

1. Remove Annex D, "Example registration", because numerous approved registrations can be examined on the Registration Authority's web site;
2. Remove Annex E, "Example of mapping table", because mapping tables are specified to be machine-readable files. Actual files will eventually be available for examination.

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### 7. Is it necessary to keep the mapping tables consistent with the current version of ISO/IEC 10646 (including amendments)?

Clause A.4.2 states:

The mapping shall identify the applicable part and edition of ISO/IEC 10646 plus any amendments and corrigenda on which the mapping is based.

There is no guarantee that there will be an ISO/IEC 10646 equivalent for every character in the coded character set being registered. However, there may be characters in the coded character set which are suitable candidates for addition to ISO/IEC 10646.

Example: When the mapping to ISO/IEC 10646 equivalents for characters for the ISO/TC 46 coded character sets were prepared, characters that did not exist in ISO/IEC 10646 were identified. Subsequently, some of these characters were added to ISO/IEC 10646 in Amendment 30.

If the applications for registrations for ISO/TC 46 coded character sets had been processed immediately, the accompanying mappings would have lacked mappings for characters that we later added to ISO/IEC 10646 with Amendment 30. That is, the mapping tables available for these character sets in the International Registry would have been out-of-date once Amendment 30 to ISO/IEC 10646 was approved.

Should there to be a process to ensure that mappings available through the International Register will be kept current with the latest version of ISO/IEC 10646?

If a mapping is not up-to-date, the users of a particular registration (i.e., programmers) may create unofficial mappings. This will create confusion in the interchange of data.

#### ***Recommendation***

**We recommend that WG3:**

1. Consider the implications of having out-of-date mappings to ISO/IEC 10646 equivalents available for general use.
2. If appropriate, develop procedures to ensure that the mappings that include characters for which mappings to ISO/IEC 10646 equivalents do not exist are re-examined whenever new characters are added to ISO/IEC 10646.

## 8. Should the Registration Authority be authorized to change registrations to correct errors without consulting the Sponsoring Authority and Owner of Origin?

This issue reflects the comment from Sweden on Clause 10.1 of the 1<sup>st</sup> CD.

Clause 10.1 of the 1<sup>st</sup> CD states:

- 2. The Registration Authority shall correct material errors, for example typographical errors and glyph errors, as soon as detected.*

The precursor for Clause 10.1 of the 1st CD was Clause 7.1 in ISO 2375-1985, which states:

- 3. Material errors, for example typographical errors, drawing errors, shall be corrected by the Registration Authority as soon as detected.*

The corresponding Clause 18.1 in the reorganized text now states:

- 4. The Registration Authority in conjunction with the Sponsoring Authority shall correct material errors, for example typographical errors and errors in the character shapes (glyphs), as soon as detected.*

Sweden commented:

**Subclause 10.1:** The Registration Authority should not be authorized to introduce “corrections” to registered character sets, particularly not to its glyphs, unless first consulting the Sponsoring Authority.

Clause 7.1 in ISO 2375-1985 may be based on the fact that, in 1985, ECMA was both the Registration Authority for ISO 2375 and the agency which provided the layout diagrams for the International Register. Clause 7.1 appears to confuse the two functions for which ECMA was responsible.

When the Sponsoring Authority is not the Owner of Origin, the Sponsoring Authority may be unable to provide authoritative information about the original character shapes and character names that the Registration Authority requires to make corrections. Therefore, the Owner of Origin rather than the Sponsoring Authority must be consulted when corrections to an approved registration are needed. (Note that when an agency specified in Clause 10.1.1 of the reorganized text proposes registration of one of its own standards, the agency functions as both the Owner of Origin and the Sponsoring Authority.)

### ***Recommendation***

**We recommend that WG3:**

- Modify Clause 18.1 to require consultation with both the Owner of Origin and the Sponsoring Authority rather than only the Sponsoring Authority.
- 5. The Registration Authority in consultation with the Sponsoring Authority and Owner of Origin shall correct material errors, for example typographical errors and errors in the character shapes (glyphs), as soon as detected.*

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### 9. Have the Registration Authority's comments in document SC 2 N 3381 been satisfactorily accommodated?

ISO/IEC JTC1 SC2 N 3381 dated 1999-09-01 describes concerns of the Registration Authority. The text of that document is included here with embedded responses.

ISO Coded Character Set Registration Authority Report (revised)

IPSJ/ITSCJ -Japan

ISO 2375 registration authority (IPSJ/ITSCJ) presented ISO Coded Character Set Registration Authority Report (SC2 N3290) in #9-SC2 (at Fukuoka Japan March 16/17 1999).

The proposal was accepted as Resolution M09.04 with modification. The resolution also asked the Registration authority to revise the document per the modification and circulate it within the SC2.

This document is the revised N3290 according to the resolution M09.04.

Recently, many registration requests have been submitted to ISO Coded Character Set Registration Authority (the RA) and many comments on registration requests from National Bodies have also been submitted. In this report, the RA, IPSJ/ITSCJ, tries to clarify registration principles of ISO 2375 for disposition of registrations and comments.

1. Registration procedure of international registry of coded character sets known as ISO-IR is defined by the international standards ISO 2375, thus is only governed by ISO 2375. ISO 2375 only allow registrations of coded character sets that are conformance to ISO/IEC2022, ISO/IEC 646, and ISO/IEC 4873 and those coded character sets described as Independent Character Set in ISO 2375.
2. Contents of the registration basically follows long used ECMA Practice of Registration Authority for ISO 2375. However, the following changes are required.
  - a. Copy of the reference material should be provided.

ISO-IR basically assumes that coded character sets are versions of ISO/IEC 646 and thus assumes national standards. However, recent registration requests are not only national standards but are from many other sources. The "ORIGIN" column should be modified, If registration "ORIGIN" is ISO standard, reference number is sufficient, but if it is not ISO or ISO/IEC standard, the RA requests the ISO-IR submitter to provide a copy of the reference material itself.

#### *Response*

"Copy not required for ISO standard": ACCOMODATED (Clause 12.1.2 in reorganized text).

"Copy of reference material itself" for other character sets: ACCOMMODATED. (Clause 12.1.2 in reorganized text.)

- b. Character shapes and character names of the "ORIGIN" should not be changed.

When an entity submits the registration request to RA for ISO-IR, original character shapes and character names found in the reference should be maintained. If original reference does not have character names, only the owner of the reference or original developer of the reference can assign them.

#### *Response*

Requirement for original shapes: ACCOMMODATED when a copy of the reference material is provided or is available from ISO.



Requirement for original names: ACCOMMODATED (Clauses A.3.2.2.1 and A.3.2.2.2)

Assignment of names only by owner of the reference or original developer of the reference: ACCOMMODATED in new clause 8, Owner of Origin, in the reorganized text.

- c. Recommendation of hexadecimal notation.

Hexadecimal notation found in new ISO/IEC 8859 series is recommended for new registration.

*Response*

Shown in Annex E of 1<sup>st</sup> CD. See issue 5 in this document.

Note that the *Practice of the Registration Authority* needs to be revised to show this approved recommendation.

- d. Reference to ISO/IEC 10646.

Reference to ISO/IEC 10646 character names is only allowed:

- The reference is provided by the owner or original developer of the “ORIGIN” or
- The reference is agreed between the ISO/IEC JTC1 SC2 and the owner of the “ORIGIN”

*Response*

Para. 2-b above says “character names of the “ORIGIN” should not be changed [from the source coded character set document].” Therefore, if ISO/IEC 10646 names were not specified for the characters in a registration application, no one is required to rewrite the application to use the ISO/IEC 10646 names. This para. 2-d must therefore refer to the ISO/IEC names in the mapping to ISO/IEC 10646 equivalents.

ISO/IEC names as part of mapping: NOT ACCOMMODATED. ISO/IEC character names are not required by Annex A.4 of the reorganized text because the ISO/IEC 10646 short identifier is sufficient to define the mapping and much more useful to a programmer implementing the mapping.

NOTE: Modification from N3290 are:

1. N3290 only allowed the registration of character sets which conform ISO/IEC 2022. Removed this requirement, and make registration of the Independent Character Set possible. Thus, para.-2 of the N3290 is removed.
2. Make statement para. 2-d (used be 3-d in N3290) clear.
3. Made minor rewording for better text.