

Comments accompanying US ballot on ISO/IEC CD 2375.2 (SC 2 N3505)

The US votes against adoption of ISO/IEC CD 2375.2 in document SC 2 N3505. If the US comments are accommodated, the US will revise its vote to approval.

Major Concerns

The US has the following major concerns about the second CD to ISO/IEC 2375. This document includes detailed comments and recommendations to help resolve these concerns.

1. Clarify Registration Procedures.

Clauses 13, 14 and 15 were modified as a result of the WG 3 ad hoc meeting to resolve issues with the first CD of ISO/IEC 2375. The US is concerned that the updates make the procedure unnecessarily complex and difficult to understand. The US, therefore, recommends that these clauses be reorganized. In Appendix B, the US proposes replacement text for these clauses.

2. Consider Bruce Paterson's Comments.

Bruce Paterson sent both technical and editorial comments to Michael Everson and Edwin Hart (see Appendix A). The US endorses the technical and editorial concerns raised by Bruce Paterson. However, the US requests a different resolution for a few of his concerns; in Appendix A, the US recommendations are enclosed in square brackets.

3. Change the Emphasis for the Role of the RA-JAC.

In this revision of ISO/IEC 2375, the RA-JAC will assume a new role of validating any optional mappings to ISO/IEC 10646. The US is concerned that the current text overemphasizes this role over the RA-JAC's traditional role as advisor to the Registration Authority and mediator.

4. Reorganize the Subclauses of Clause 18.2.

Clause 18 was revised to respond to the issue of adding a mapping to an existing registration by adding clause 18.2. The first three subclauses (18.2.1, 18.2.2, 18.2.3) deal with the responsibilities of the Sponsoring Authority and therefore should be moved to clause 10. In addition, the US requests additional steps like those in clause 15 to complete the process.

Request to Registration Authority

When the RA starts adding mappings to ISO/IEC 10646, the RA may want to add a pointer to the Unicode Consortium website (<http://www.unicode.org>), where the Unicode Consortium has published many mapping tables.

Detailed Comments

These comments are organized by the clause numbers of CD 2375.2. This set of comments is highly integrated so that a change in one clause depends on changes to other clauses as well.

1. Except for clause 6, change “subcommittee concerned with coded character sets” to “ISO/IEC supervisory body” to parallel the usage of the names from clauses 7 to 10 throughout the document.
2. *Introduction.* For the last sentence of the second paragraph, add “and the ISO/IEC 2375 register” after “2375”.
3. *Clause 2.4,* remove the comma after the “)” in the last line.
4. *Clause 3.* The editor may consider adding the second part of ISO/IEC 10646 as a normative reference to the DIS.
5. *Clause 4.* In conjunction with Bruce Paterson’s second technical comment about changing “final character” to “final byte” in clause 15.1, add a definition for the term “byte”. The following definition comes from ISO/IEC 8859:

byte: A bit string that is operated upon as a unit.

6. *Clauses 4.6 and 4.7.* Change “ISO/IEC 6927” to “ISO/IEC 6937”.
7. *Clause 5.1.* Replace clause 5.1 with clauses A.1 and A.2 revised as specified under the changes to clauses A.1 and A.2.
8. *Clause 7.2.2.* In the first bullet, change “12 and 13” to “12, 13, 14, and 15”.
9. *Clause 7.2.5.* Add a comma after “example” in the fifth line.
10. *Clause 7.2.6.* Since ISO/IEC 8859 brings no requirements to the Registration Authority, the editor may wish to delete this standard from the list.
11. *Clause 10.2.2.4.* Getting endorsement of the developer of an application is not always possible or feasible. A simple example would be registration of a new G1 set for use on the Internet for Email. Where would one find the developer of that application called Email for endorsement? Add a sentence to the end similar to the last sentence of clause 10.2.2.3:

If the organization that developer of an application either no longer exists or cannot be identified, the requirement is waived.

In the second line, remove “to be a code”.

12. *Clause 10.2.2.7.* Remove the clause. This is part of the procedure (clause 13.4) rather than a responsibility. The responsibilities are redundant to clause 10.2.2.6. Moreover, the SA is not required (the “shall”) to make the updates because it may decide not to do the work that the RA requires for registration.
13. *Clause 10.2.3.2.* In the second line, add “or omission” after “error”, and add “or a mapping” before the comma.

14. *Clause 11.1.* Add a new first subclause before clause 11.1:

11.1 Role

The Registration Authority's Joint Advisory Committee (RA-JAC)

- mediates appeals,
- advises the Registration Authority on technical matters, and
- verifies mappings to ISO/IEC 10646.

15. *Clause 11.1.1.* Move the note to follow the rewritten and moved first sentence of clause 11.3.4. See comment on clause 11.3.4.

16. *Clause 11.3.2.* Remove the first sentence. When there is a difference of opinion between the Sponsoring Authority and the RA-JAC over the mapping table, the mapping in the registration needs to accommodate both viewpoints. Neither the SA nor the RA-JAC should have ultimate authority over the mapping. It is sufficiently clear from the second and third sentences of clause 11.3.2 that the mapping can and should include the views of both bodies when there is a difference of opinion. Therefore, the first sentence conflicts with the second and third sentences and it must be removed.

In addition, replace the last sentence to indicate that the RA may add information to the mapping table over the objections of the Sponsoring Authority. Here is suggested text:

If the Sponsoring Authority and the RA-JAC cannot agree on changes to the mapping provided by the Sponsoring Authority, the RA may add supplementary information from the RA-JAC to the mapping even if the Sponsoring Authority objects.

17. *Clause 11.3.3.* Change the emphasis by replacing the clause with the following:

At the request of the Sponsoring Authority, the RA-JAC may provide assistance in preparing a mapping to ISO/IEC 10646. However, the RA-JAC shall not be required to create the mapping. In addition, if a registration application does not include a mapping, the RA-JAC shall not create the mapping.

18. *Clauses 11.3.4 and 11.3.5.* We agree with Bruce Paterson about clauses 11.3.4 and 11.3.5 being part of the registration procedure. However, we disagree with moving them to clause 14 because, for the most part, they duplicate subclauses of clause 13: clause 11.3.4 duplicates clause 13.5 and clause 11.3.5 duplicates clause 13.9.3. Also, note that the first sentence of clause 11.3.4 contains an important RA-JAC responsibility. Therefore, add a new clause before clause 11.3.2 with the following text:

For those applications which include a mapping to ISO/IEC 10646, the RA-JAC reviews and validates the mapping. See [CD-2] clause 13.5 [editor to verify cross reference].

19. *Clauses 11.3.6 and 11.3.7.* Move these clauses after clause 11.3.1 to shift the emphasis of the RA-JAC back to the responsibility of mediator of appeals as appeared in earlier editions of ISO 2375.
20. *Clause 12.1.3.* Change “ and” to a comma, and insert “and 10.2.2.5” before the period to cover the insertion of a new clause to clause 10.2.2 and the need for the Owner of Origin to verify redrawing of the code table and/or list of character names.
21. *Clause 13.4.* Issue of redrawing of the coded character set. Clause 13.4 introduced a requirement for the Owner to review and certify a redrawing if this is requested by the RA

to improve legibility. This same concern applies when the SA includes a redrawn coded character set as part of a new registration application. Since this concern applies in both instances, the requirement for Owner review in the second sentence in clause 13.4 should be moved to clause 10. Delete the second sentence of clause 13.4 and add the following clause between clauses 10.2.2.4 and 10.2.2.5:

If the coded character set to be included in the registration is not the coded character set as originally published but a redrawing for the purpose of the registration, then the Owner of Origin shall certify that the character shapes and character names in the revision are accurate with respect to the coded character set as it was originally published. If the Owner of Origin no longer exists or cannot be identified, then the Sponsoring Authority shall include both the redrawing and the document used as the source for the redrawing in the application.

Modify the last sentence and move it as a new clause between clauses 11.2.2.4 and 11.2.2.5. This action applies before submitting the application or after the RA requests an update; so it is better to place it in one location under the responsibilities of the SA. Suggested text is:

If the Sponsoring Authority changes the description of the coded character set (for example, by redrawing the code table and/or list of character names), the Sponsoring Authority shall obtain the endorsement of the Owner of Origin if the Owner of Origin can be identified and still exists.

Add a new sentence to clause 13.4:

If the Registration Authority requires that the code table and/or list of character names be redrawn, then clause 11.2.2.5 applies. [clause 11.2.2.5 is the new clause created by rewriting and moving the last sentence of 13.4]

22. *Clause 16.5.1.* Change “cee” to “see”.
23. *Clause 18.2.1.* Replace “when required” with “as needed” and move this clause to between clauses 10.2.3.2 and 10.2.3.3 so that it becomes the new clause 10.2.3.3.
24. *Clause 18.2.2.* Add the following sentence to the end: “The Registration Authority shall process the proposed mapping as if it had been included in the original application.”
25. *Clause 18.2.3.* Delete this clause because the updates to clause 10.2.3.2 cover this responsibility.
26. *Clause 18.2.4.* For the last sentence, replace “request” through the end of the sentence with the following text:

state whether

 - a mapping table is being added
 - an existing mapping table is being revised
27. *Clause 18.2.5.* To the end of the first sentence, add “(clause 14)” because the revised clause 14 describes this procedure. Remove the second sentence.
28. *Clause 18.2.6.* Replace the text with:

The Registration Authority shall publish an approved mapping in accordance with clause 15.2.
29. *Clause 18.2.7.* Add a new clause

The Registration Authority shall notify the Sponsoring Authority of publication of the additional or revised mapping.

30. *Clause 18.2.8.* Add a new clause

The Registration Authority shall announce publication of the additional or revised mapping to interested parties (see clause 7.2.4).

31. *Clause 19.3.2.* Add “by the Sponsoring Authority” to the end of the last sentence and change “13.7” to “13.8”.

32. *Clause A.* Change the title to “Details of registrations”.

33. *Clauses A.1 and A.2.* In clause A.1, replace “two” with “three”, insert “mapping tables associated with registrations,” before “and”. Replace clause 5.1 with revised clause A.1 and clause A.2.

34. *Clause A.3.* It is unclear what parts are mandatory and which are optional. See the comment for clause A.3.2. Change clause A.3 to:

Each registration shall include the cover page and, except for ISO and ISO/IEC coded character set standards, a description of the coded character set. The registration may also include a mapping to ISO/IEC 10646 as an option.

35. *Clause A.3.1.1.* In the last bullet, replace “and” with “If so, then the identify of that coded character set shall be given (see clause 18.1.3).”.

36. *Clause A.3.1.1.* In the fourth bullet from the end of this section, insert “ISO/IEC 2022 standard” before “return”, and enclose “escape sequence ESC 2/5 4/0” in parenthesis.

37. *Clause A.3.1.1.* In the bullet text, “the description will state if any of the following conditions apply”, change “will” to “shall”.

38. *Clause A.3.1.2.* In the fourth bullet, replace “changed” to “revised”.

39. *Clause A.3.2.1.1.* A multi-octet coded character set should be shown as a set of 16 by 16 code tables as specified in the first CD. ISO/IEC 10646 uses 16 by 16 code tables and sets the standard for multi-octet coded character sets. The 24 by 24 code table in the second CD is too difficult to read. Change “24 rows by 24 columns” to “16 rows by 16 columns”. This change affects at least clauses A.3.2.1.1, and D.4.

40. *Clause A.3.2.* Change the title to only “Coded character set”.

41. *Clause A.3.2.2.2.* In the sixth line, change “registrations” to “a registration”.

42. *Clause A.4.* Add new clauses after A.4.1 to identify the coded character set of the registration and the creation date. Even if the mapping information is included as part of the registration, the mapping needs to include the identity of the coded character set of the registration. Suggested text is:

The mapping shall identify the coded character set mapped to ISO/IEC 10646, e.g., by name and registration number.

The mapping should include the date of creation.

43. *Clause A.4.6.* Change the second bullet to “the corresponding ISO/IEC 10646 code position or combining sequence.”
44. *Clause A.4.7.* Remove the text “to retain round trip integrity” to resolve Bruce Patterson’s comment. Before the last sentence, add a new sentence, “Since use of private use areas requires an agreement between the sender and receiver about the meaning of the code positions in the private use area, use of private use areas is discouraged.” In the last sentence, add “Consequently,” at the beginning and replace “a private use area” with “a code position from the private use area or planes”.
45. *Clause A.4.9.* Remove the second sentence of the first bullet. This sentence reads: “Any alternate mapping should be on a separate line.” This sentence causes a conflict with clause A.4.4. See the comments on clause A.4.10 for the place to describe alternate mappings in the mapping information.
46. *Clause A.4.9.* In second bullet, change “Each record” to “Each line of text” and remove “U+0009” since the control character is from ISO/IEC 6429 rather than ISO/IEC 10646.
47. *Clause A.4.10.* Clarify to indicate that supplementary information, such as alternate mappings, belongs after the mapping records provided by the Sponsoring Authority. (See comment on clause A.4.9.) Replace the sentence with:

After the mapping records, the mapping may include supplementary information for clarification, e.g., when a special situation may warrant an alternate mapping for a character.
48. *Clause A4.11.* Move after clause A.4.12 to show a sequence of action and relative position of the information (at the end of the mapping).
49. *Clause A.4.12.* Clause A.4 is about the content of the mapping rather than the procedure to product that content. Revise the text to specify the identification and location rather than the procedure for including RA-JAC information. Delete the first sentence, then replace the second sentence by:

Alternate mapping and additional information supplied by the RA-JAC (See [new] clause 14.5) shall be located after the mapping information provided by the Sponsoring Authority and shall be identified under the heading, “Additional information provided by the ISO/IEC 2375 Registration Authority”.
50. *Clause A.5.* Move after clause 5.2 and the moved clause A.7. Indices are an integral part of the International Register now specified in clause 5. Annex A now describes only the details of registrations.
51. *Clause A.7.* Remove the title clause A.7. In the third line of the second paragraph of clause A.7.2, add a comma after “ISO/IEC”, remove “or”, and add “or ITU” before “(for”. Move clause A.7.1 and A.7.2 after clause 5.2. See comment for clause A.5.
52. *Clause B.1.1.* Delete “complete coding system,” because CD-2 replace this term with “coding systems not conformant with ISO/IEC 2022” to better describe the concept.
53. *Clauses D.1 and D.2.* Reorganize clauses D.1 and D.2 into one clause with the title, 7-bit graphic character sets:

D.1 7-bit graphic character sets

D.1.1 94-character graphic character sets

D.1.2 96-character graphic character sets

Remove the second sentence under clause D.2 about shading not applying to standards not in conformance to ISO/IEC 2022. This would allow registering of 7-bit coded character with graphic characters in the first two columns.

54. *Clause D.4.* See the comments on clause A.3.2.1.1. Change the code table for multi-octet coded character sets to 16 by 16.

If the editor rejects this comment, the rows and columns in the 24 by 24 table are incorrectly labeled because the bit patterns range from 33 to 56 decimal or 21 to 38 hexadecimal rather than from the 1 to 24 decimal and 00 to 17 hexadecimal as shown in the present table. Moreover, it appears that bit b_1 (b_1) of the first column should be “1” instead of “0”.

Appendix A. Comments from Bruce Paterson

From: B Paterson [SMTP:BrucePaterson_UK@compuserve.com]
To: Michael Everson; Edwin F Hart
Cc: Mike Ksar
Subject: Comments on ISO/IEC CD 2375.2 dated 2000-12-11

Michael and Ed

I have just reviewed CD 2375.2, edited by both of you plus Joan Aliprand according to its cover page.

I have a few comments, including one significant technical comment, but I am unable to submit them via the UK National Body since it is no longer a member of JTC1/SC2. I would be glad if you would consider them, and perhaps include them with one of your own NB's comments if you agree they need to be taken into consideration.

In general, I am quite impressed with the care that has evidently gone into tightening up the provisions in this CD, and defining the various entities and their responsibilities, the application and the procedures, in more detail than before. I hope that the IT community will actually find it useful after all this effort.

Regards - Bruce.

A. Technical Comments

1. In Annex A.3.1.1, 1st and 2nd sub-sub-bullets, the distinction shown between the two types of 94-character graphic set is false. There is only one type of 94-character graphic set. The "one intermediate byte" and "second intermediate byte" that are mentioned are features of the assigned escape sequences, not of the sets themselves.

(The second intermediate byte supplements the final byte when all the available final byte values have been used up, as specified in ISO/IEC 2022 clauses 13.2.2 and 14.1.)

2. In 15.1, following on from the above comment, The RA must, when appropriate, assign a 2nd intermediate byte as well as a final byte. [Accommodated in the revised procedures in Appendix B.]

Note also that the correct term from ISO/IEC 2022 is "final byte", and not "final character" (3 instances in 15.1).

B. Editorial Comments

1. Contents list on page ii: In the title of clause 14 ISO/IEC has been mis-spelled as ISO/IEC.

2. Mis-use of the word "shall".

The word "shall" should be confined to stating requirements of this standard, within its stated scope. The following are inappropriate places for its use -

- Clause 1.2 line 6. Replace "shall" by "are recommended to", as this standard cannot mandate the "organizations" that are the subject of the sentence. [The US recommends resolution by replacing "shall" with "need to".]

- Clause 2.3 line 2. Replace "shall serve" by "serves", as it is a statement of fact, not a requirement on any body or thing.

- Clause 2.4 line 4. Replace "shall identify" by "identifies", as it is a statement of fact, and the various requirements are covered elsewhere (Annex A).

3. 11.3.4 & 11.3.5 These sub-clauses are details of the registration procedures, and thus belong better in clause 14 than here. [See US comment on these two clauses.]

4. Annex A.3.1.2, 3rd bullet.

Alter "sequence" to "sequence(s)", since for registration of a graphic character set there are 3 or 4 sequences, for G0, G1, G2, G3 code elements respectively. Of course the sequences all have the same final (and 2nd intermediate) byte, and that is the unique component of the sequence(s) in each registration.

5. A.3.2.2.2 line 6. Alter "registrations" to "a registration", to match the title of A.3.

6. A.4.1 The sentence is confusing. Rearrange as:

"A mapping of the characters in the coded character set to ISO/IEC 10646 equivalents may be included in the registration as an option. If such a mapping is included then the following requirements apply." [US recommends adding a comma before "then" of the last sentence.]

The reason is that otherwise the "shalls" in A.4.2ff seem to conflict with the "shall" in A.4.1.

7. A.4.7 line 6. The term "round trip integrity" should be defined or omitted. [The US recommends omitting the term.]

8. A.4.9 line 1. Delete "to", it's a typo.

END OF COMMENTS

Appendix B. Revised Registration Procedure (Clauses 13, 14, 15)

The proposed text is shown in the Helvetica font. Explanatory comments are in an italic Courier font.

13 Registration procedure

13.1 The Sponsoring Authority shall prepare an application for registration according to clause 12.

No change to this clause

13.2 The Sponsoring Authority shall submit an application for registration of a coded character set to the Registration Authority.

No change to this clause

13.3 The Registration Authority shall examine each application received. It shall ascertain that

- The proposed coded character set is not identical to a coded character set already registered. See Annex **B.2**.
- The application for registration of a single additional control function to be represented by the F_S escape sequence (see ISO/IEC 2022) is from the subcommittee concerned with coded character sets. See Annex **C**.

If the application fails to meet either of these requirements, the application shall be rejected. (See Clause 13.11.)

Clause 13.3 in CD2 includes two types of requirements. If either the 2nd or the last requirement is not met, the application is rejected outright. If any of the other requirements are not met, the application may be amended and resubmitted. Clause 13.3 has therefore been split into two clauses.

13.4 The Registration Authority shall also ascertain that

- The application is formally in accordance with this International Standard and, where applicable, with ISO/IEC 2022, ISO/IEC 646 and ISO/IEC 4873.
- The application for registration is legible and meets the presentation practice of the Registration Authority. See clause 7.2.5.
- The application includes the elements required from the Sponsoring Authority for the cover page. See clause 12.1.1.
- The application for registration includes the required description of the coded character set. See clause 12.1.2.
- The application for registration includes any required copyright permissions and endorsements. See clause 12.1.3.

If the application for registration fails to meet any of these requirements, the Registration Authority shall inform the Sponsoring Authority of the changes needed to meet the requirement(s). If the Registration

Authority requires that the code table and/or list of character names be redrawn, then [new] Clause 10.2.2.5 applies.

Part of Clause 13.3 (edited) plus 1st sentence of Clause 13.4 (modified). These are the requirements which may be met with a modified application. This corrects the first bullet that omitted coded character sets not in conformance with ISO/IEC 2022 by moving "where applicable". ISO/IEC 2375 is for registering coded character sets that are not in conformance with ISO/IEC 2022 ("complete character sets" in the first CD) in addition to those that are in conformance with ISO/IEC 2022. The remainder of Clause 13.4 of CD2 (dealing with verification by the Owner of Origin) has been moved to Clause 10.2.2 because it may apply to an initial application as well.

13.5 When requested by the RA, the RA-JAC may provide an opinion on whether an application for registration meets the requirements of Clauses 13.3 and 13.4.

New. The RA-JAC had this duty in the past.

13.6 If the registration includes a mapping, the procedures in Clause 14 apply.

Clauses 13.5 through 13.7 of CD2 moved to Clause 14 (which covers review of the mapping).

13.7 When an application for registration and its accompanying mapping (if included) have passed the Registration Authority review and the RA-JAC review, the Registration Authority shall circulate the application and the mapping to the members of the subcommittee concerned with coded character sets for a three-month information and comment period. This clause does not apply if the application is for a coded character set standard owned by the subcommittee concerned with coded character sets.

Corresponds to Clause 13.8 in CD2. In the 2nd sentence, "approved" has been changed to "owned" to avoid confusion with approval of the registration by the RA and to indicate that SC2 is the Owner of Origin of coded character sets which qualify for this waiver.

13.8 The Registration Authority shall consider all comments received, and then approve or reject the application for registration.

Clause 13.9 of CD2, modified. (Note that no reference to Clause 13.11 is needed here because this is a drop-through situation.)

13.9 The Registration Authority may request the RA-JAC to provide expert technical advice on the comments.

New. Sanctions role of RA-JAC to assist RA with technical issues.

13.10 The Registration Authority shall process approved applications in accordance with Clause 15. The Registration Authority may incorporate comments resulting from the review specified in Clause 13.7 into the final registration.

Clause 13.10 of CD2 plus part of Clause 13.9 (edited).

13.11 When an application for registration is rejected, the Registration Authority shall inform the Sponsoring Authority and provide the reason for the rejection.

New. Rejection must be communicated to the Sponsoring Authority if there is to be an appeal (Clause 16.2)

14 Evaluation of mapping to ISO/IEC 10646

Spelling of title corrected (editorial comment by Bruce Paterson)

14.1 The Registration Authority shall circulate any registration application with a mapping to ISO/IEC 10646 to the members of the RA-JAC for a technical review of not more than two months. This clause does not apply if the mapping has been created and reviewed by the subcommittee concerned with coded character sets.

Clause 13.5 of CD2, modified. See also comments about Clause 13.7 above. Wording of the final sentence addresses the US requirement that the mapping be subject to review by qualified experts, in this case, SC 2 or its WGs.

14.2 The RA-JAC shall evaluate any mapping included in an application for technical suitability according to Annex **A.4**.

Clause 14.1 of CD2, edited.

14.3 The RA-JAC shall report the results of its evaluation to the Registration Authority and shall describe any technical concerns with the proposed mapping.

Clause 14.2 of CD2, unchanged.

14.4 The Registration Authority shall inform the Sponsoring Authority of any changes to the mapping recommended by the RA-JAC.

Clause 13.6 of CD2, modified. In particular, the "required" technical changes have been changed to "recommendations", because the RA-JAC cannot compel the Sponsoring Authority to make the changes.

14.5 If the Sponsoring Authority disagrees with the recommendations of the RA-JAC, then the Registration Authority shall include not only the mapping from the Sponsoring Authority but also information from the RA-JAC in the registration. The information from the RA-JAC may include an alternative mapping, if appropriate. The Registration Authority shall notify the Sponsoring Authority about the information added to the mapping.

Clause 13.7 of CD2, edited.

14.6 The Registration Authority shall circulate the mapping (amended according to Clause 14.5 if necessary) to the members of the subcommittee concerned with coded character sets for review in accordance with Clause 13.7.

New. Specifies what is done with the mapping after review by the RA-JAC.

14.7 The RA-JAC, in consultation with the Sponsoring Authority, may assist the Registration Authority to resolve comments on the mapping.

i.e., Clause 13.9 of CD2, modified. Clauses 13.9.1 through 13.9.3 of CD2 are eliminated.

15 Processing of an approved application

15.1 The Registration Authority shall assign the escape sequence.

- Final bytes shall be allocated by the Registration Authority in ascending order. This allocation shall only be made immediately prior to publication of the registration, that is, after completion of all procedural steps.
- The Registration Authority shall, when appropriate, assign a second intermediate byte in addition to the final byte, as specified in ISO/IEC 2022.
- No final byte(s) shall be reserved for future registration applications.
- A final byte once allocated to a registered character or coded character set shall never be re-allocated for another registration.

Change of "character" to "byte" recommended by Bruce Paterson (technical comment). Bullet on second intermediate byte added to accommodate technical comment by Bruce Paterson.

15.2 When the mapping to ISO/IEC 10646 in a registration is approved, the Registration Authority shall record the date of approval and shall then make the mapping (including any additional information as specified in clauses 14.5 and 14.7) available in machine-readable form. See Annex **A.4** for details about the format for the mapping.

Clause 15.2 of CD2, modified to add task of recording the date of approval of the mapping.

15.3 The Registration Authority shall publish the approved registration in the ISO/IEC 2375 register.

Clause 15.3 of CD2, unchanged.

15.4 The Registration Authority shall notify the Sponsoring Authority of the publication of the registration.

Clause 15.4 of CD2, unchanged.

15.5 The Registration Authority shall announce publication of the registration (and mapping if present) to interested parties (see clause 7.2.4)..

Clause 15.5 (edited) of CD2.

[END OF PROCEDURE]