

ISO/IEC JTC 1/SC 2  
CODED CHARACTER SETS  
SECRETARIAT: JAPAN (JISC)

**DOC TYPE:** Summary of Voting/Table of Replies

**TITLE:** Summary of Voting on SC 2 N 3505, ISO/IEC CD 2375.2, Information technology -- Procedure for registration of escape sequences and coded character sets

**SOURCE:** Secretariat, ISO/IEC JTC 1/SC 2

**PROJECT:** JTC 1.02.04.00.00.00.04

**STATUS:** This document is forwarded to WG 3 for consideration. WG 3 is asked to prepare a disposition of comments report, revised text, and a recommendation to SC 2 for further processing.

**ACTION ID:** FYI

**DUE DATE:**

**DISTRIBUTION:** P, O and L Members of ISO/IEC JTC 1/SC 2  
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Summary of Voting on SC 2 N 3505

	Approve	Approve with comments	Disapprove	Abstain	No Response	Comments
<b>P-Member</b>						
Armenia					X	
Austria					X	
Belgium	X					
Canada			X			Attachment 1
China	X					
Denmark	X					
Egypt					X	
Finland					X	
France					X	
Germany	X					
Greece	X					
Iceland					X	
India					X	
Iran, Islamic Republic of					X	
Ireland	X					
Israel	X					
Italy	X					
Japan			X			Attachment 2
Korea, Dem. P. Rep. Of					X	
Korea, Rep. of	X					
Mongolia					X	
Morocco					X	
Netherlands	X					
Norway	X					
Poland		X				Attachment 3
Romania	X					
Russian Federation					X	
Singapore					X	
Slovenia					X	
Sweden		X				
Thailand	X					
Tunisia					X	
Turkey					X	
USA			X			Attachment 4
Yugoslavia					X	
	13	2	3	0	17	
<b>Total (35)</b>	<b>15</b>		<b>3</b>	<b>0</b>	<b>17</b>	
<b>O-Member (if responding)</b>						
Czech Republic	X					

## Attachment 1 - Canada

Comments on SC2 N3505 - CD 2375.2 - Procedure for registration of escape sequences and coded character sets  
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1. Introduction, page iv, end para, last sentence:

Change to read:

Instead, it depends on this standard, ISO/IEC 2375, and the associated International Registry, to assign the meanings.

2. Clause 3 - Normative References

a. Add reference to ISO/IEC 10646-2: 2001 (By the time the revision of this standard progresses to FDIS, FDIS 10646-2 is expected to have been approved as an IS).

b. Reference to ISO Directives - Part 1, dated 1995, should be replaced with reference to the latest JTC1 Directives (dated 1999-09-23 at the ITTF's web site). There is specific mention of ISO 2375 and the Registration Authority for it, in the JTC1 Directives. The 1995 version of ISO Directives Part 1 is under revision.)

3. Terminology and Definitions alignment with JTC1 Directives

(The CD document should be checked for terminology alignment with Annex E of JTC1 Directives dated 1999.)

For example - the term APPLICANT are used to refer to SPONSORING AUTHORITY used in ISO 2375;

TECHNICAL GROUP refers to the ISO/IEC SUPERVISORY BODY etc. ISO 2375 predates JTC1 directives, and this is the opportunity to align CD2375.2 with the JTC1 procedure document.

Also, the Registration Coversheets etc. have to be aligned with Annex E of JTC1 Directives.

4. Clauses 4.6 and 4.7

References to ISO/IEC 6927 in cluses 4.6 and 4.7 should be corrected to ISO/IEC 6937. A new Annex - Bibliography (for example) should be created to list such non-normative references.

5. Clause 7.2.6, page 3

a. Current 2375 standard, calls for a TECHNICAL OFFICER of RA to participate in Coding Standards committee. Clause 7.2.6 calls for "representative of RA". Change it to "technical representatve".

b. Delete ISO/IEC 8859 from the list of standards in this clause. It is not in the same catergy as the others as far as Registration Authority's role is concerned.

6. Clause 9 - Copyright Owner

Copyright Owner -- should be moved to Terms and Definitions -- instead of being a separate clause.

7. Clause 10.2.1, second dashed item

Should "Actions relating to .. " be reworded to "Actions related to .." ?

8. Clause 10.2.2.1

Change "A Sponsoring Authority shall receive proposals .. " to "A Sponsoring Authority receives proposals .. ". Check use of the word "shall" in all the clauses for its appropriate use. General rule is that "Shall" is to be used when there is some sort of "conformance" is expected.

JTC1 procedures document calls the party submitting a registration application to the RA an APPLICANT.

SC2 has to decide if it wants to keep the old 2375 terminology or align with latest JTC1 terminology associated with Registration Authority, Registrations etc. Canada recommends an alignment with latest JTC1 Procedures document. This would mean some changes to the COVER PAGES used for new submissions, in the current ISO-IR, and terminology in the RA's practices document.

9. Clause 10.1.1

Change "A Sponsoring Authority can submit applications ... " to "A Sponsoring Authority submits applications .. " or "A Sponsoring Authority is the submitter of applications .. "

A separate clause should be added to address what happens when a Sponsoring Authority disappears, especially TCs and SCs of ISO and IEC are disbanded for lack of projects from time to time or due to reorganizations etc. What should the RA do when original submitter is not to be found when, for example, mapping to 10646 is desirable to be added to an existing registration, or to respond to clause 10.2.2.7 etc.

10. Clause 11.1.1

The representative of the RA in the RA-JAG should be a "technical representative". Similarly the national body representatives must be "technical experts" from the national bodies.

11. Responsibilities of RJ-JAC

The first important role of RJ-Joint ADVISORY Committee's is its ADVISORY role. This means assisting in the review of submissions towards technical correctness and completeness and provide feedback to the Sponsor. If the SA did not submit a mapping table to 10646, for example, the RA-JAC may suggest to SA an appropriate mapping table towards improving the utility of the registration, if it considers that such a mapping table would be useful to the users of the registration.

The second important role is to be the body responsible for dealing with APPEALS.

The way the clauses are written, these are not coming out clearly. It "reads" as if the RJ-JAC is pre-occupied with mapping to 10646 than anything else.

12 Clause 11.3.2

Ultimate responsibility of the contents of a Registration rests with the SPONSORING AUTHORITY, including the contents of any mapping tables to 10646. If RA-JAG and Sponsoring Authority cannot come to an agreement on the final content of such a mapping table, then RA may add the RJ-JAG's supplementary information or alternatives with some explanation, to the registration.

13 Clause 13.5

The RA should circulate the application to the RJ-JAG even if it does not have a mapping to 10646.

delete the words ..with a mapping to 10646 ..

The last sentence raises the question -- if the application is from SC2, for example, the registration does NOT need to have a mapping to 10646? Or, it is expected to have one?

14 Clause 13.7

Reword .. If the Sponsoring Authority disagrees with RA-JAC concerns about the mapping ..

to ..

If any disagreement between the Sponsoring Authority and RA-JAC concerning the mapping to ..cannot be resolved, then the RA shall keep the mapping from SA. Additionally, on the recommendation of the RA-JAC, the RA may add alternative mappings and supplementary information to the ...

This change would also make it more in tune with clause 11.3.2.

15. Clauses 13.9.2, 13.9.3

These clauses and possibly others are addressing the case where there could be delays in coming to an agreed upon mapping table to 10646, and there is no disagreement on any other parts of the Registration Application. In such as case the RA should go ahead and publish the agreed upon content of the registration and when the mapping tables are consolidated add it to the published registration.

This aspect should be relegated to Clause 15, thereby simplifying what is in clause 13.

16. Clause 14

This clause should be deleted. The review of the mapping table should not be singled out from the review of the application itself. If any mapping table is submitted with the original application, clauses in 13 should address its review automatically. If one is not submitted, as indicated earlier, the RA-JAC can suggest one, where needed, during the review.

Different clauses in 13 already address the mapping table review.

17. Clause 15.2

There is a mention of availability in machine readable form in the middle of the clause. The aspect of RA making the mapping table available in a machine readable form should be removed from here and made a separate clause all by itself.

For example: When a registration includes one or more mapping tables to 10646, the mapping table(s) shall be made in available in a machine readable form (format to be specified in the Practice of RA document, for example see Annex .. ).

18. Clause 17.1, Second Sentence.

This sentence does not make any sense. If the correction is to UPDATE the REFERENCE only, then it may be do-able. If the correction is to the external referenced document itself, this sentence needs some thought. When an external document exists and is referenced by a registration, even the Sponsoring Authority, or even the owner of origin, may not be able to do anything about that external document.

Same problem with Clause 17.2 - second sentence. Not clear as to what is meant here.

19. Clause 18.1.2  
.... waiver of clause 18.1 to .. should be ... waiver of clause 18.1.1 ... ??

20. Clause A.3  
Reword as follows:

Each registration shall comprise the following parts:

- Cover page
- Description of the coded character or character set

Additionally, a registration may have

- Mapping to ISO/IEC 10646

21. A.2 Format of the IR

... electronic format .., should be reworded:

... electronic format on the internet, and optionally on other electronic media. It may also be made available on paper. The mapping tables to 10646 for the registrations shall be made available in a machine readable format ...

22. A.3 Cover Page

Please ensure alignment with the JTC1 procedure's Annex E regarding cover page for registrations.

23. Clause A3.1.1

Dashed item beginning with "the coded character set is intentionally a subset .."  
"

... the standard or standards shall be included either in the short ..  
should be changed to

... reference(s) to the standard(s) shall be included either in the short ..

=====

=====  
Annex E of JTC 1 Directives: Procedures for the technical work of ISO/IEC JTC 1 on Information Technology (Fourth edition, 1998 - as of 1999-09-23) is reproduced below:  
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Annex E: Registration Definitions and Guidelines for Procedure Standards

E1 Definitions

For the purpose of registration, the following definitions apply:

applicant

An entity (organization, individual etc.) which requests the assignment of a name for an object from a JTC 1 Registration Authority.

JTC 1 Registration Authority

An organization approved by ISO/IEC for performing international registration according to the rules for operation in 2.7.2 and the procedure guidelines in E2.

name

The term "name" is used in its common English usage and refers generically to the terms "name," "address," "identifier," etc. used in specific JTC 1 standards.

naming domain

The set of names that are assignable to objects.

[Note: Usually a naming domain is concerned with objects in a particular class.]

procedure standard

The standard containing the specific procedures for the JTC 1 Registration Authority to follow.

register

A set of files (paper, electronic, or a combination) containing the assigned names and the associated information.

registration

The assignment of an unambiguous name to an object in a way which makes the assignment available to interested parties.

technical group

The group in JTC 1 ( e.g., an SC) responsible for the relevant technical standards.

technical role (of a JTC 1 Registration Authority)

Recording definitions of the objects to which names are assigned and verifying that these definitions are in accordance with the IS defining the form of the definition.

technical standard

The standard containing the definition of the classes of objects requiring registration.

## E2 Guidelines for Procedure Standards

### E2.1 Purpose

The purpose of this section is to provide guidance to technical groups concerning the elements which must be included in a JTC 1 Registration Authority procedure standard.

[Note: Where JTC 1 Registration Authorities are not involved, portions of this section may also be useful in the work of the technical groups in assuring the international integrity of any registration, but are not normative.]

### E2.2 Content of Procedure Standards

A procedure standard shall include definitions for:

- \* criteria for applicants for registration;
- \* information to be included on application including the technical definition of the object where applicable;
- \* steps involved in review and response to application including specific time frames;
- \* where not already included in the technical standard, a description of the naming domain, and the syntax of names used;
- \* criteria for rejection of applications, including (where applicable) procedures for the validation of object definitions;
- \* procedures for maintenance of register;
- \* if applicable, requirements for confidentiality of portions of the information;
- \* if applicable, procedures for publication of register.

### E2.3 Criteria for Eligibility of Applicants for Registration

The procedure standard shall define the criteria for applicants for registration. Choices may include any of the following:

- \* NBS or liaison organizations of ISO/IEC;
- \* a national or international standards committee or subcommittee, or group appointed by such a subcommittee or committee;
- \* other organizations meeting specific criteria defined by the technical standards body in the procedure standard.

### E2.4 Applications for Registration

The procedure standard shall define the information to be included with applications for registration. The minimum set of information is described in E2.13.2. Additional information can be specified. The format of the application shall be determined by the JTC 1 Registration Authority who may also require additional information to facilitate processing. The JTC 1 Registration Authority shall also provide tutorial material to assist applicants in preparing applications.

### E2.5 Fees

The types of fees and amounts shall not be included in the procedure standard.

### E2.6 Review and Response to Applications



The procedure standard shall define the process for the JTC 1 Registration Authority to review and respond to applications to ensure fairness and shall define the maximum time intervals between steps of the process.

Where the JTC 1 Registration Authority is expected to perform a technical role in determining conformance of the object to be registered to the technical standard, this role shall be defined in the procedure standard. The response to the applicant shall include information pertaining to the results of the technical review.

#### E2.7 Assignment of Names and Recording of Object Definitions

The procedure standard shall describe the assignment process for names. The process shall be such that the assigned name is unique within the register. The assignment process also shall be such that the same name is not assigned to another object.

After the assignment has been made, the name and associated information shall be included in the register and the JTC 1 Registration Authority shall inform the applicant of the assignment in a timely manner (within the maximum response time specified in the procedure standard). In cases where the JTC 1 Registration Authority performs a technical role the object definition shall be recorded in the register at the time when the name is assigned. The procedure standard defines the process by which the object definition is validated.

#### E2.8 Naming Domain

##### E2.8.1 General

When not already defined in the technical standard, the procedure standard shall define the appropriate naming domain and name syntax from which the JTC 1 Registration Authority will assign names either directly or by reference to a separate specification.

Wherever possible, the naming domain should be open-ended to accommodate future registration requirements.

In addition, in selecting the naming domain, the following should be considered:

- \* the reservation of space for special assignments;
- \* the syntax from which the names are assigned;

[Note: Names may be represented in one or several forms (e.g., numeric, alphabetic, alpha-numeric, etc.). When several forms are prescribed, the various forms are considered equivalent. For example, in ISO 3166 there are "Alpha-2", "Alpha-3", and "Numeric" codes for the representation of names of countries.]

- \* when the syntax requires numeric values, the use of sequential assignment wherever possible, starting at some arbitrary value;
- \* the length of the name;
- \* the matching criteria to be used for determination of duplicate entries.

##### E2.8.2 Re-use of Names

Depending on the volume of registrations anticipated, and technical and other considerations, re-use of names may be necessary. To be available for re-use, previously assigned names may either be given up voluntarily or be reclaimed (see E2.8.3). The procedure standard shall define whether:

- \* a name can never be re-used or;

\* a name can be re-used after specific time period to identify another object.

If names may be given up voluntarily, the process by which this is done shall be described in the procedure standard.

#### E2.8.3 Reclamation

If the JTC 1 Registration Authority is allowed to reclaim a name, the procedure standard shall list the conditions under which reclamation is allowed and the procedure for reclamation.

#### E2.9 Rejection of Applications

The procedure standard shall define the criteria for rejection of applications. These criteria shall include the following as well as any additional criteria deemed necessary:

\* ineligibility of applicant;

\* the absence of proper fee;

\* incomplete or incomprehensible information in application;

\* the justification for inclusion in the register (as defined in the procedure standard) is not adequate;

\* where the JTC 1 Registration Authority performs a technical role, the object to be registered does not conform to the technical definition.

In cases where applications are rejected for any reason, the procedure standard shall define the expected response time.

#### E2.10 Maintenance

The procedure standard shall define the requirements that the JTC 1 Registration Authority should follow for maintenance of the register. At a minimum, these shall include:

\* Mechanisms for maintaining the integrity of register including adequate backup (such as off-premises storage) and records retention requirements. In addition, there shall be provision for the owner of a name to provide updated information (see E2.13);

\* Mechanisms for maintaining confidentiality of data elements where such confidentiality is required. The specific data elements requiring such confidentiality shall also be specified in the procedure standard.

[Note: Additional requirements are covered in the contract between ITTF and the JTC 1 Registration Authority.]

#### E2.11 Confidential Information

Generally, the interests of the community of information technology users is best served if the register information is made public. In certain cases, however, there may be a need for confidentiality of some or all of the data pertinent to a particular registration, either permanently or for some portion of the registration process. If confidentiality is required, the procedure standard shall define such requirements. The JTC 1 Registration Authority shall ensure appropriate safeguards to protect the confidentiality of such information.

#### E2.12 Publication of the Register

The procedure standard shall define whether the JTC 1 Registration Authority

should provide for publication (electronic or paper) of the register as a requirement or as an option. Where publication is required, printed paper versions are mandatory. The publication shall be consistent with any requirements for confidentiality of any of the information.

If the JTC 1 Registration Authority is to provide publication, the JTC 1 Registration Authority shall keep accurate distribution records pertaining to its publications.

#### E2.13 Information Requirements

The procedure standard shall specify the information contained in the register, and on forms associated with the registration process.

##### E2.13.1 Minimum Content of the Register

At a minimum, the register shall contain:

- \* the assigned name;
- \* name of initial applicant;
- \* address of initial applicant;
- \* date of original assignment;
- \* date of last transfer of assignment, if allowed (updatable);
- \* name of current owner (updatable);
- \* address of current owner (updatable);
- \* if the owner is an organization, the name, title, postal/e-mail address, telephone/facsimile number of a contact person within the organization (updatable);
- \* date of last update (updatable);
- \* where required by the technical standard or the associated procedure standard, a technical definition of the object.

The procedure standard shall define additional register information relevant to the class of objects to be registered.

##### E2.13.2 Minimum Content of Forms

The contents of forms (paper, electronic, or a combination of both) for Registration Application, Request for Update, Notification of Assignment or Update, and Rejection of Application shall include:

- \* name of applicant;
- \* address of applicant;
- \* if the applicant is an organization, the name, title, postal/e-mail address, telephone/facsimile number of a contact person within the organization.

[Note: There should be a correspondence between the data on these forms and the contents of the register.]

Depending on the type of form, additional information to be included shall be:

- \* data to be updated, old and new values (Request for Update);

- \* authorization to release specific data (Registration Application);
- \* any justification required for the assignment (Registration Application);
- \* reasons for action taken (Notification of Assignment or Update, and Rejection of Application);
- \* where required by the technical standard or the associated procedure standard, a technical definition of the object to be registered (Registration Application).

The procedure standard should define additional information relevant to the class of objects to be registered.

#### E2.14 Consultation with Other Groups

The procedure standard shall indicate that the JTC 1 Registration Authority may consult with the technical group responsible for the technical standard and the associated procedure standard. In addition, it may consult with the RG-RA.

#### E2.15 Dispute Resolution

If there is dispute between an applicant and a JTC 1 Registration Authority, it is expected that the JTC 1 Registration Authority will make reasonable efforts to resolve the dispute. The procedure standard shall address any specific requirements for this informal process.

Additionally, to resolve the dispute, the procedure standard shall define a formal appeals process for use when the informal efforts to resolve the dispute fail. This appeals procedure shall be developed by the RG-RA with the cooperation of the technical group responsible for the technical standard.

**TITLE: Vote on the 2ndCD2375**  
**SOURCE: SC2 Japanese National Body**  
**DATE: 2001-03-07**

Japan disapproves the 2ndCD2375 (SC2 N3505) with the following comments. This CD has so many errors and/or questionable items that the changes based on them will affect all over the CD's text. Therefore, Japan requests the project editor to accept these Japanese comments, rewrite the text and submit it as the 3rdCD.

### **MAJOR TECHNICAL COMMENTS:**

J-1. Clause 11.3, 13.5 and 13.8, Responsibility of the RA-JAC

Clause 11.3 and its sub-clauses say that the activity of the RA-JAC is only the matter of mapping of ISO/IEC 10646. On the other hand, clause 13.5 and 13.8 say that the RA-JAC does technical reviews of applications, not only the matter of mapping. There is some contradiction.

Japan believes that the RA-JAC should be responsible to all technical matters of applications for registration, not only the matter of mapping.

J-2. Clause 13.7, Alternative Mappings

Japan strongly opposes this clause with the following two reasons:

- The idea of "Alternative Mapping" described here is beyond the resolution No.2 of SC2 N3479.
- Japan believes that any mapping suggested by the RA-JAC but not agreed by the SA shall not be registered, even as "Alternative Mapping". In other words, an entire registration shall be what is totally agreed by its SA.

J-3. Addition of Flow Charts

Add flow charts, which illustrate the procedures on this standard.

The addition of such flow charts was agreed at the latest WG3 meeting in Athens.

### **OTHER COMMENTS:**

J-4. Clause 1.1

Rewrite this clause.

**RATIONALE:**

This CD specifies not only RA's procedures but also such as RA-JAC and SA.

- J-5. Clause 1.2  
Change “ISO” for “ISO and/or IEC”.
- J-6. Clause 3  
Add ISO/IEC 6937 as a normative reference.  
RATIONALE:  
It is referred in clause 4.6 and 4.7. (6927?)
- J-7. Clause 3  
Check if 1995 is the latest date of ISO Directives.
- J-8. Clause 4.6 and 4.7  
Change “ISO/IEC 6927” for “ISO/IEC 6937”.
- J-9. Clause 5.1  
Change “A registration consists of a cover page, and a” for “A registration shall consist a cover page and a”.
- J-10. Clause 5.2  
Remove this clause.  
RATIONALE:  
Clause 7.2.3 covers the same requirement.
- J-11. Clause 7.2.5  
Change the parenthesized phrase “(for example fonts for the code table, terminology, identification of unused position, etc.)” for “(for example printed code tables, terminology, identification of unused position, etc)”.  
RATIONALE:  
Collection or maintenance of fonts is beyond the responsibility of the RA.
- J-12. Clause 7.2.6  
Remove the phrase “involved with the work on ISO/IEC 646, ISO/IEC 2022, ISO/IEC 4873, ISO/IEC 8859, ISO/IEC 10646 and on other coding standards where required.”  
RATIONALE:  
Japan supposes that such an enumeration of names of these standards is not necessary. But if it is really necessary, Japan requests to add “ISO/IEC 6429” into this enumeration, because registrations of control functions are one of major portions of this CD’s scope.

J-13. Clause 10.1.1

Change the first sentence for “A Sponsoring Authority is an organization that submits applications concerning the meanings of escape sequences to the Registration Authority.”

RATIONALE:

The purpose of this clause is to define a SA. Japan feels that the word “can” is not suitable for this sentence for the definition.

J-14. Clause 10.2.2.5

Add following phrase into the last sentence: “with agreement with the Owner of Origin.”

J-15. Clause 11.1.1

Delete the NOTE.

RATIONALE:

The word “consult” reminds the possibility that the RA-JAC would be controlled by some other organizations. Even though each member of the RA-JAC may consult other experts, this NOTE says too much thing not necessary to note.

J-16. Clause 11.3.2

Insert a new sentence between the second and the third sentences as follows:

Furthermore, the RA-JAC shall not add any other mappings to an application without the permission of the Sponsoring Authority.

J-17. Clause 12.1.1

There is a missing text that is regarding the non-ISO or non-ISO/IEC coded character sets. There is a necessity of other information as well as cover sheet for non-ISO or non-ISO/IEC coded character sets.

J-18. Clause 12.1.4

Rewrite whole of this clause as follows:

12.1.4 Registration application may optionally include mappings to ISO/IEC 10646 (see annex A.4).

RATIONALE:

Clause 12.1 and its sub-clauses should only describe the administrative requirements for registration applications.

ADDITIONAL QUESTION:

If a registration application from the SA includes more than one mapping to ISO/IEC 10646, is it acceptable?

J-19. Clause 13.5

Remove “with a mapping to ISO/IEC 10646”.

RATIONALE:

This sentence is not regarding the case that an application does not include a mapping. Moreover, a mapping itself is a content of an application if provided.

J-20. Clause 13.9.2

Rewrite the first words “This review” much more clearly.

They may be the procedure of clause 13.9.1?

J-21. Clause 13.9.3

Rewrite the first words “After the review period” much more clearly.

J-22. Clause 16.3

Remove a “that” from the third dash.

J-23. Clause 18.1.2

Remove “of clause 18.1” from the first sentence. It does not make sense.

J-24. Clause 18.2.1

Add “If the original registration includes a mapping to ISO/IEC 10646,” to beginning of this clause.

RATIONALE:

If a registration does not include a mapping to ISO/IEC 10646, its SA is not responsible for monitoring revisions to ISO/IEC 10646.

J-25. Clause 18.2.5

The wording of the first sentence is too complicated for an International Standard. Rewrite this sentence into easier expression without inversions such as “had it been submitted”, and make it clearer the procedure to add mappings to the registration.

J-26. Clause 18.2.5

Change “according to clauses 13.5, 13.6 and 13.7,” of the second sentence for “according to clauses 13.5, 13.6, 13.7 and 13.8”.

RATIONALE:

The members of the subcommittee concerned with coded character sets can not send any comments without the circulation of the new application. Review procedure by the members of the subcommittee concerned with coded



character sets is described in clause 13.8.

J-27. Clause 18.2.5

Change “the revised mapping” of the second sentence for “the new or revised mapping”.

J-28. Clause 19.3.2

Change “according to clause 13.7” for “according to clause 13.8”.

J-29. Clause A.4.4

Divide the third dash into two dashes as follows:

- no ISO/IEC 10646 character
- (optionally) when no equivalent character is in ISO/IEC 10646, a character in either the private use area or private use planes of ISO/IEC 10646

J-30. Clause A.4.9

Change

“by the character tabulation control character U+0009 of ISO/IEC 6429. (This control character is frequently called a horizontal tab character.)”

for

“by the control character HT (CHARACTER TABULATION) of ISO/IEC 6429. (This control character was called HORIZONTAL TABULATION in the ancient version of ISO/IEC 6429.)”.

In addition, change “comma” for “COMMA”.

RATIONALE:

This clause specifies the format of machine-readable forms. Its specification is requested to be described in expressions that are more concrete even about character names. Remember that short identifiers (i.e., U+xxxx) are not defined for control characters specified by ISO/IEC 6429.

J-31. Clause A.4.9

Add the encoding scheme into the guidelines of machine-readable forms. Japan strongly recommends that the code (not only repertoire) of machine-readable forms shall be ISO/IEC 646 IRV and its C0 control characters shall be limited to HT, CR and LF.

J-32. Clause A.4.11

Change “approved” for “accepted”.

RATIONALE:

The RA shall not approve/disapprove a mapping. It's only the matter of the RA-JAC.

J-33. Clause A.4.13

Remove whole of this clause.

RATIONALE:

It is not necessary to specify such too detailed matter in this standard.

J-34. Clause A.4.13

Change the fifth dash for "whether the registration includes a mapping to ISO/IEC 10646 or not".

RATIONALE:

It is not clear whether this phrase requires YES/NO or a mapping to ISO/IEC 10646 itself in the indices.

J-35. Clause A.7.1

Change "space" in the first sentence for "SPACE".

RATIONALE:

The small case "space" may mean SPACE, HT or IDEOGRAPHIC SPACE. When considering machine-readable forms, it is better to limit to a character SPACE.

---End---

### **Attachment 3 - Poland**

Polish comments on document ISO/IEC CD 2375.2 (N 3505)

The definition 4.6 of combining character has a large common part with the definition 4.7 of combining sequence. This suggests that, aiming at shorter and more clear definitions, the wording can be improved by avoiding the repetition.

9 February, 2001

## **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 2<sup>nd</sup> 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 1<sup>st</sup> 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 2<sup>nd</sup> 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]