

SMPTE STANDARD

for Television and Motion Pictures — Dynamic Documents



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1 Scope

1.1 There is a need in the field of information technology for the unambiguous identification of objects to provide interoperability among information systems. Individual standards committees have divined, as part of their development of technical standards, classes of objects. Specific objects are the individual members of the class of objects. Registration is the process whereby unambiguous names are formally associated with objects. This may be done by an organization, a standard, or an automated facility.

1.2 Within the television and motion-picture industries, there is a need for engineering documents (standards, recommended practices, and engineering guidelines) which can easily and rapidly be extended to cover new requirements (dynamic documents). Such documents typically contain tables of values, parameters, or other entities that cannot be fully defined at the time the document is written.

1.3 Through a process described in this standard, the dynamic tables described above are established as registers to be administered by the SMPTE Registration Authority (SMPTE RA).

1.4 Dynamic documents are created using the same administrative practices as conventional SMPTE documents. Once a dynamic document is adopted as an engineering document, only designated entities within a dynamic document are subject to change by the dynamic document process. As with conventional engineering documents, the base document can be modified, but only in accordance with existing administrative practices.

1.5 Four types of registers are defined. These types differ in their procedures for adding or modifying the data contained within the registers.

1.6 In this standard, *shall* denotes a mandatory provision of the standard, *should* denotes a provision that is recommended but not mandatory, and *may* denotes a provision that is optional.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this standard are encouraged to investigate the possibility of applying the most recent edition of the standards indicated below.

ISO/IEC JTC 1 Directives, Procedures for the Technical Work of ISO/IEC JTC 1 on Information Technology, Third Edition, 1995

Society of Motion Picture and Television Engineers Administrative Practices, Section XIII, Engineering

3 Definitions

3.1 data: A representation of facts, concepts, or instructions in a formalized manner, suitable for communication, interpretation, or processing by humans or automatic means.

3.2 data element: A unit of data for which the definition, identification, representation, and permissible values are specified by means of a set of attributes.

3.3 engineering document: A SMPTE standard, recommended practice, or engineering guideline, or equivalent document from another organization.

3.4 register: A set of files (paper, electronic, or a combination) containing the assigned data elements and the associated information. (Definition adapted after that in annex E of the ISO/IEC Directives.)

3.5 registered data element: A data element that has been entered into a register kept by a registration authority.

3.6 registration authority (RA): The organization established by the SMPTE Registration Authority, LLC which is authorized to register data elements.

3.7 registration authority board (RA Board): The registration authority board consists of the board of directors of the SMPTE Registration Authority, LLC.

4 Types of data elements

4.1 Type

Dynamic documents shall specify the type to which each registered data element within that document belongs, together with the information that must be supplied with each request for registration. The

Standards Committee shall specify which technology committee or other body is charged with reviewing the request.

4.2 Data set

An engineering document establishing a dynamic document shall specify an original set of data to be entered into the register once the engineering document has been approved.

4.3 Extension or change

Portions of the dynamic document that are subject to extension or change shall be clearly labeled as such, and shall be classified according to type as defined below. Assignment of registered data element type shall be subject to ballot and approval per applicable SMPTE administrative practices as is the rest of the document.

4.4 Maintenance

An engineering document establishing a dynamic document shall specify the RA responsible for maintenance and upkeep of any registered data elements specified in the engineering document. The engineering document may also specify locations where registers and registered data elements may be found in electronic form.

Table 1 outlines the difference among registered data element types.

Table 1 – Characteristics of registered data element types

Registered data element type	1	2	3	4
Supporting engineering document	✓			
Technical comment period	✓			
Review for technical merit	✓			
Ballot for technical merit	✓			
Public notice of ballot	✓	✓		
Consensus	✓	✓		
Standards Committee procedural review and approval	✓	✓		
Trial publication for public comment	✓	✓	✓	
Detailed format description	✓	✓	*	
Statement of intention to apply and date of first use			✓	3
Complete application required	✓	✓	3	3
NOTE – ✓ = required; * = may be required.				

4.5 Type 1 registers

Additions to a type 1 register shall be subject to review for technical merit, adequacy of information provided, nonconflict with existing engineering documents, and compliance with type 1 requirements. Additions to a type 1 register shall require an underlying engineering document to support any addition (see figure 1).

Example: If a document is extended to include a new type of ancillary data, at least a first draft of a SMPTE engineering document must exist describing the new ancillary data.

4.5.1 Information required for additions to type 1 registers

The following information shall be provided by any organization, individual, or committee wishing to make additions to a type 1 register:

- 1) Contact information for the organization, individual, or committee requesting the addition;
- 2) The supporting engineering document used as the basis for the submission;
- 3) A request specifying the addition to the register;
- 4) Identification of the specific register to which the addition is to be made;
- 5) Detailed information regarding the purpose and use of the addition to the register;
- 6) Name of authorized representative of the organization requesting the addition.

4.6 Type 2 registers

Additions to a type 2 register shall be subject to review for adequacy of information, including technical description, nonconflict with existing engineering documents, and compliance with type 2 requirements. Additions to a type 2 register shall not be subject to review for technical merit. Additions to a type 2 register shall not require a supporting SMPTE engineering document (see figure 2).

During the ballot process for a change in a type 2 registered data element, negative votes based upon procedural issues, including adequacy of technical description, shall be accepted. Negative votes based upon technical merit shall not be considered. Exam-

ple: The addition of a term to the metadata dictionary is an example of a type 2 data element.

4.6.1 Information required for additions to type 2 registers

The following information shall be provided by any organization, individual, or committee wishing to make additions to a type 2 register:

- 1) Contact information for the organization, individual, or committee requesting the addition;
- 2) A request specifying the addition to the register;
- 3) Detailed information regarding the purpose and use of the addition to the register;
- 4) Name of authorized representative of the organization requesting registration.

4.7 Type 3 registers

Additions to a type 3 register shall be reviewed for adequacy of information and compliance with type 3 requirements. Additions to a type 3 register shall not be subject to due process review (see figure 3).

Example: An example of a type 3 data element is an item in the portion of the metadata dictionary assigned for prototype purposes.

4.7.1 Information required for additions to type 3 registers

The following information shall be provided by any organization, individual, or committee wishing to make additions to a type 3 register:

- 1) Contact information for the organization, individual, or committee requesting the addition;
- 2) A request specifying the addition to the register;
- 3) Detailed information regarding the purpose and use of the addition to the register;
- 4) A detailed description of the format specification may be required;
- 5) Statement of intention to apply the registered data element, and intended date of first use;

6) Name of authorized representative of the organization requesting the addition.

4.8 Type 4 registers

Additions to a type 4 register shall be reviewed for adequacy of information and compliance with type 4 requirements. Additions to a type 4 register may require a fee payment before changes or additions will be accepted. Additions to a type 4 register shall not be examined for technical merit. Additions to a type 4 register shall not be subject to consensus review or trial publication (see figure 4).

Example: The registration of an MPEG RID or UPID root number would be a type 4 data element.

4.8.1 Information required for additions to type 4 registers

The following information shall be provided by any organization, individual, or committee wishing to make an addition to a type 4 register:

- 1) Contact information for the organization, individual, or committee requesting the addition;
- 2) Statement of intention to apply the registered data element, and intended date of first use;
- 3) Name of authorized representative of the organization requesting the addition to the registry.

5 Deletion of registered data elements

5.1 Any request for deletion of a registered data element shall result in the posting of an appropriate public notice giving the specifics of the proposed deletion. The following information shall be required before a deletion shall be considered:

- 1) Contact information for the organization, individual, or committee requesting the deletion;
- 2) Any supporting document that may have been used as the basis for an original request for creation of the registered data element;
- 3) A request specifying the deletion of the registered data element along with a complete justification for the deletion;

4) Identification of the specific register to which the deletion is to be made;

5) Name of authorized representative of the organization requesting the deletion.

5.2 To give users an opportunity to disagree with the deletion, the registered data element to be deleted will be marked as such for a one-year period. If, after this period, nobody identifies himself as a user, the registered data element shall be deleted from the register. If even one objection is received concerning deletion of the registered data element, the data element shall not be deleted.

5.3 In the event that it is discovered after the fact that an application for a registered data element contained false or misleading information, the registered data element may be immediately deleted from the register at the sole discretion of the SMPTE Registration Authority.

5.4 With the exception of 5.3 above, a registered data element shall not be deleted from a register earlier than one year from the time public notice is given of the deletion.

5.5 Individual engineering documents may impose restrictions on deletion of a registered data element that are more restrictive than those specified here.

6 Deletion of a register

6.1 A register can only be deleted by a revision to a register's establishing engineering document, or through withdrawal of the engineering document establishing the register.

6.2 Any request for deletion of a registered data element shall result in the posting of an appropriate public notice giving the specifics of the proposed deletion.

6.3 To give users an opportunity to disagree with the deletion, the register to be deleted will be marked as such for a one-year period. If, after this period, nobody identifies himself as a user, the register shall be deleted. If even one objection is received concerning deletion of the register, the register shall not be deleted.

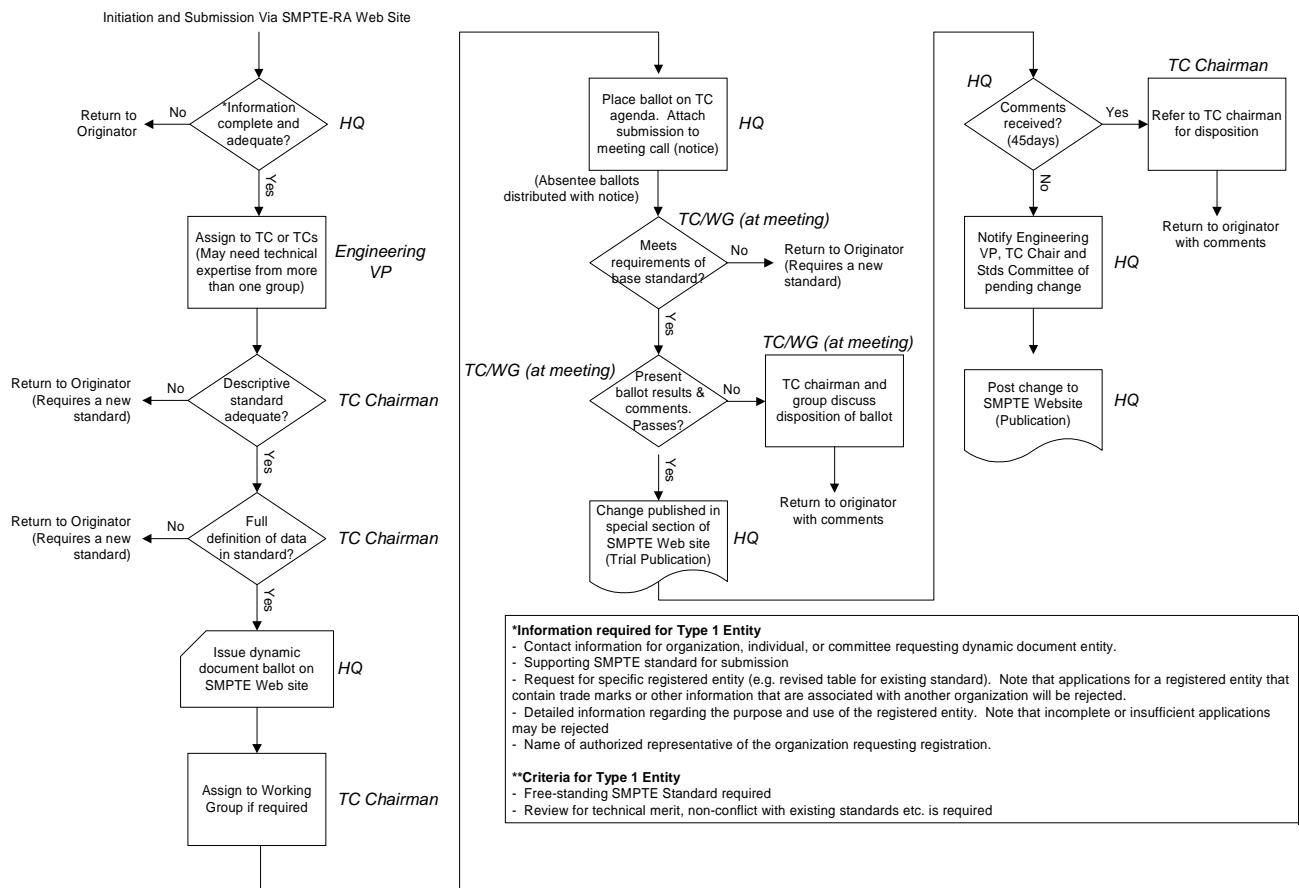


Figure 1 – Flow diagram for type 1 SMPTE dynamic document entity

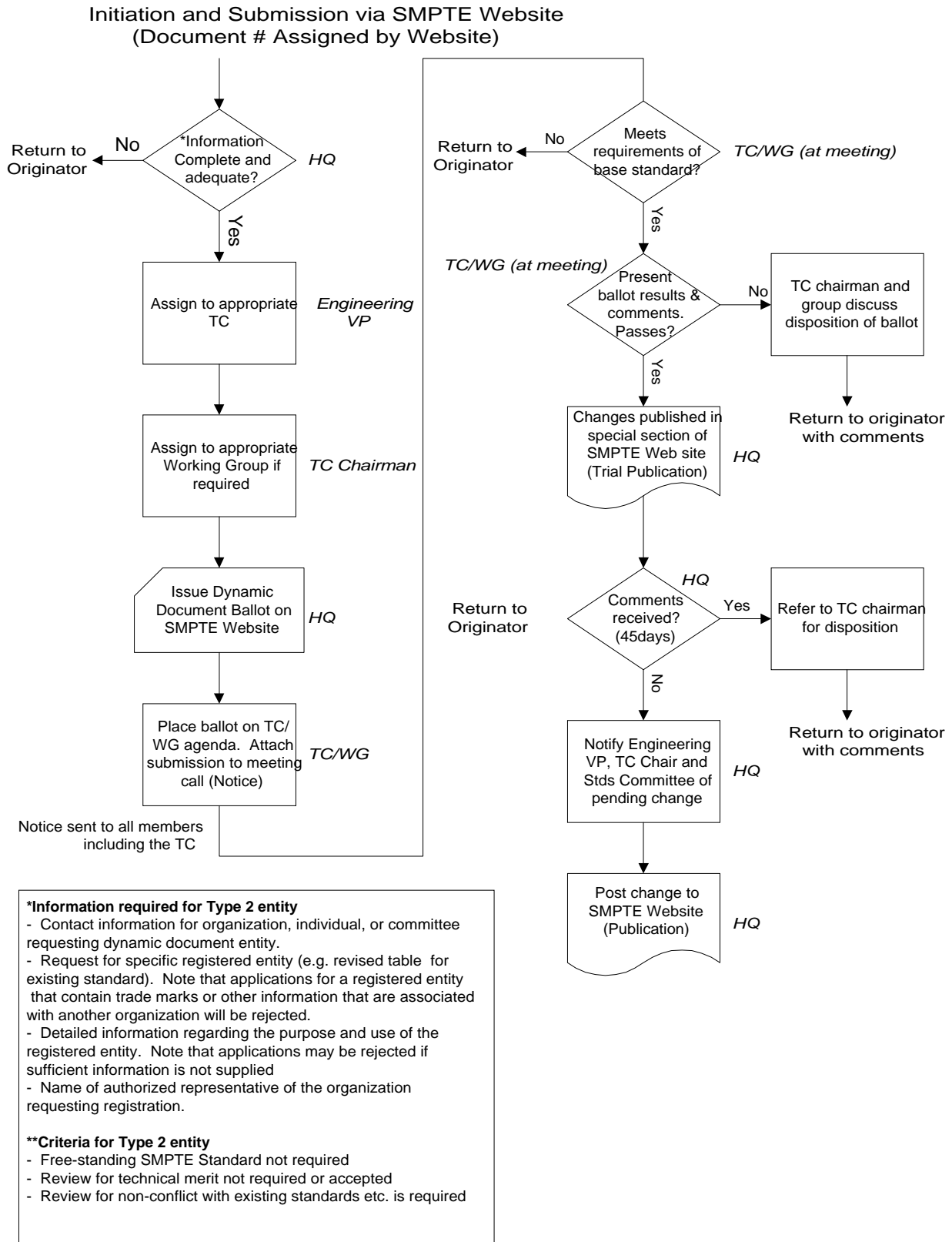
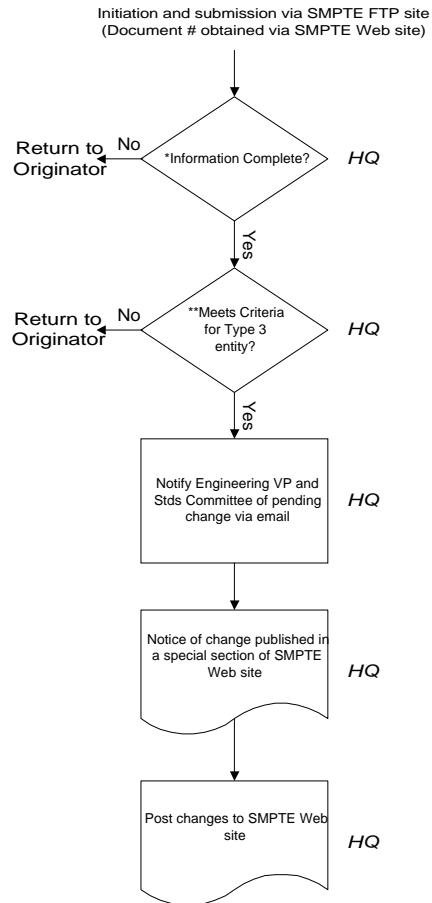


Figure 2 – Flow diagram for type 2 SMPTE dynamic document entity


***Information required for Type 3 entity**

- Contact information for organization, individual, or committee requesting registration.
- Request for specific registered entity (e.g. revised table for existing standard). Note that applications for a registered entity that contain trade marks or other information that are associated with another organization will be rejected.
- Detailed information regarding the purpose and use of the registered entity. Note that applications may be rejected if sufficient information is not supplied
- Detailed format specification may be required
- Name of authorized representative of the organization requesting registration.

****Criteria for Type 3 entity**

- Free-standing SMPTE Standard not required
- Review for technical merit, non-conflict with existing standards etc. not required
- Payment not required

Figure 3 – Flow diagram for type 3 SMPTE dynamic document entity

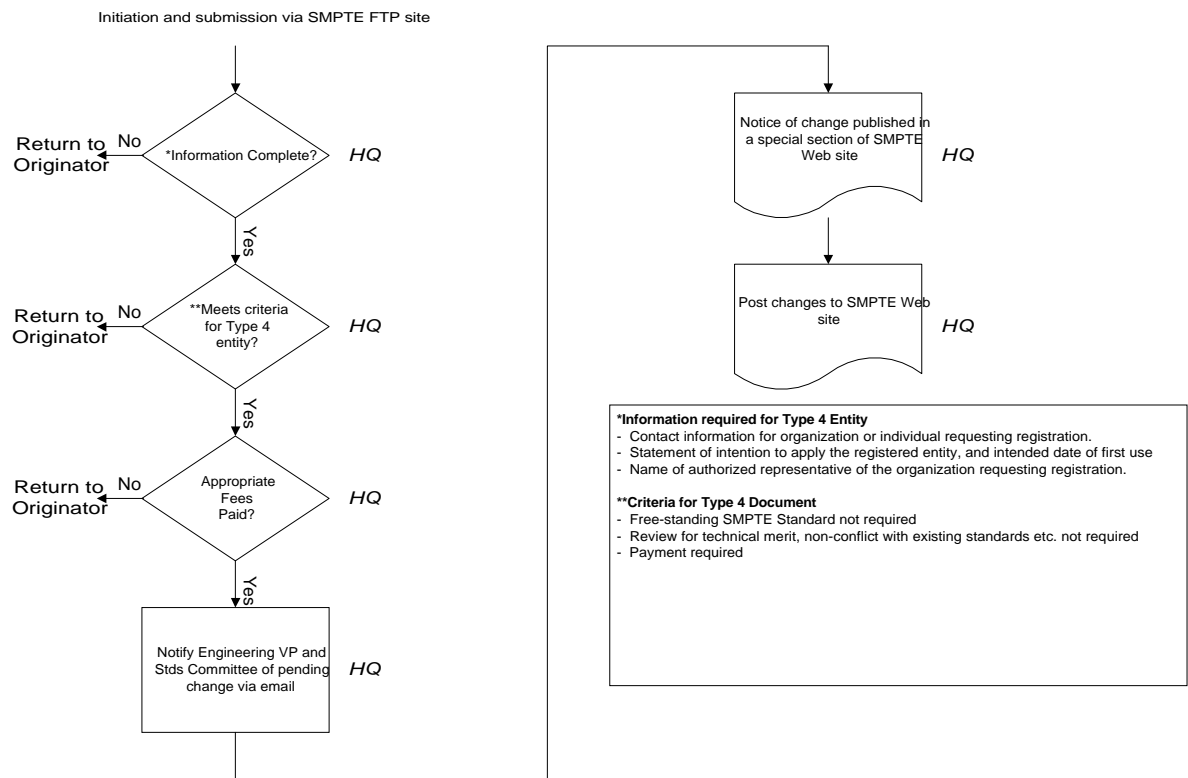


Figure 4 – Flow diagram for type 4 SMPTE dynamic document entity

6.4 In any event, a register shall not be deleted sooner than one year from the time public notice is given of the deletion.

6.5 Individual engineering documents may impose restrictions on deletion of registers that are more restrictive than those specified here.

7 Reuse of names

Names that have been previously published in the register may never be reused.

8 Changes to registered data elements

Any change to a registered data element shall be treated procedurally as a deletion of a registered data element followed by an addition of a new data element.

9 Changes to organization contact information for previously registered data elements

9.1 Applications for changes to organization contact information for previously registered data elements shall be accepted by the RA.

9.2 If the organization of record is still in existence, the request for the change must come from that organization. If the organization of record is not in existence, the organization requesting the change shall provide a statement in writing certifying that it has attempted to contact the organization of record on at least three occasions using different delivery methods without success.

9.3 The RA shall not accept any request for changes to organization contact information without either an authorization from the organization of record, or, should the requester be different from the organization of record, a statement in writing from the requester as described above.

9.4 The RA shall collect information related to a change in contact information for a previously registered data element in accordance with clauses 10 and 11.

9.5 The RA shall acknowledge receipt of a request for a change in contact information within five business days of receipt.

9.6 The RA shall publish a change in contact information in the appropriate register within 30 days of approval of such request.

10 Minimum content of all registers

At a minimum, all registers 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 (updateable);
- name of current owner (updateable);
- address of current owner (updateable);
- if the owner is an organization, the name, title, postal and email address, and telephone and facsimile number of a contact person within the organization (updateable);
- date of last update (updateable);
- where required by the technical standard, a technical definition of the object.

Note that, in the case where the name of the initial applicant is SMPTE, only the name of the initial applicant is required.

11 Minimum content of forms

11.1 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 and email address, and telephone and facsimile number of a contact person within the organization.

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, a technical definition of the object to be registered (registration application).

11.2 Any supporting engineering document shall define any additional information required.

12 Multiple types permitted

12.1 Only portions of an engineering document designated as registered data elements shall be subject to addition, deletion, or change according to the dynamic document process. The rest of the document shall be modified according to existing SMPTE administrative procedures for nondynamic documents.

12.2 A dynamic document may include several registers.

12.3 A dynamic document may include registered data elements of several types.

13 Rejection of application

13.1 Applications for registration of data elements that contain trademarks or other information that is associated with organizations other than the submitting organization shall be rejected.

13.2 Applications for registration of data elements that contain incomplete, insufficient, or incomprehensible information, as determined during the review process, may be rejected.

13.3 Applications that do not conform to technical requirements of the supporting standards may be rejected.

13.4 Applications that duplicate existing applications or existing registered data elements may be rejected.

13.5 Where fees are required, applications not accompanied by the appropriate fee will be rejected.

13.6 Applications containing false or misleading information may be rejected.

13.7 Failure to follow the procedures contained in this standard may cause the application to be rejected.

13.8 Applications from applicants that are ineligible to file an application may be rejected.

13.9 Where a justification is required, applications that contain inadequate justification as determined during the review process may be rejected.

14 Submission, review and appeal process

14.1 New registers and original registered data elements shall be created when an engineering document containing such items is formally approved.

14.2 Submission of additions, deletions, and changes to a registered data element shall follow the procedures described above.

15 Registration Authority function and responsibilities

15.1 General

15.1.1 The RA shall be responsible for maintaining all registers for the Society of Motion Picture and Television Engineers and other organizations as agreed to by the RA Board, in a way agreed to by the RA board.

15.1.2 The current RA is listed in annex A.

15.1.3 The RA recognizes that its interests and those of its members and subscribers cannot take precedence over the general interests of users of the RA information worldwide. The effectiveness of the RA depends on the ability to

support the needs of all users in all countries and the recognition that all participants in the system should benefit equally.

15.1.4 The address of the RA Board is listed in annex B.

15.1.5 The RA shall submit to the RA Board a registration authority report two weeks prior to any scheduled meeting or as required. The report will summarize the activity of the RA between reporting periods. The detailed information contained in these reports will be determined between the RA and the RA Board.

15.1.6 The RA shall submit to the RA Board a registration management report consisting of any appeals or complaints acknowledged by the RA within the reporting period. The report will be produced at least six weeks prior to any meeting of the RA Board.

15.1.7 The RA shall maintain records of all completed requests for a minimum of three years. Requests shall include all additions, changes, and deletions.

15.1.8 The RA shall maintain standard operating procedures (SOPs) to be submitted to the RA Board for annual review. Any changes to the SOPs shall be approved by the RA Board.

15.1.9 The RA shall maintain strict confidentiality between the RA operating functions and other parts of its organization.

15.1.10 The RA shall comply with the appeals process administered by the RA Board.

15.1.11 The RA shall make available to any interested parties any registered information administered by the RA in both electronic and paper form. The RA shall keep accurate distribution records pertaining to its publications.

15.1.12 The RA's performance shall be monitored by the RA Board in accordance with the conditions documented in both this standard and the service level definition in annex C of this standard.

15.1.13 The RA may appeal to the RA Board for arbitration if it regards a request as being frivolous or unreasonable for any reason.

15.1.14 The RA may consult with the technical group responsible for the engineering document and the group responsible for development of this standard. In addition, it may consult with the RA Board.

16 RA responsibilities to requesters

16.1 The RA shall be responsible to requesters as follows:

16.1.1 Assisting the requester with completion of the request form;

16.1.2 Provide timely response to all requests. This includes confirmation and processing of the request;

16.1.3 Provide detailed explanation of all responses, if required, in English;

16.1.4 Provide assistance for general information and service issues;

16.1.5 Fulfill the duties of providing additions, amendments, and deletions;

16.1.6 Advise the requester of the appeals process if the requester is dissatisfied with the RA determination.

17 Ownership of data

The data which constitutes any registered entities are the property of the SMPTE Registration Authority, LLC.

18 Procedural changes

The service level definition set forth to maintain registries established in engineering documents shall be the responsibility of the RA and the RA Board. Any subsequent changes will require the approval of the RA Board. The service level definition supporting this standard is included in annex C.

19 Appeals

19.1 Requesters should make reasonable efforts to resolve problems directly with the RA outside of this appeals process.

19.2 If there is a dispute between an applicant and the RA, the RA will make reasonable efforts to resolve the dispute.

19.3 Requesters should review clause 13 of this standard for criteria applicable to the rejection of a registration application.

19.4 Any requester who believes that his application for registration has been unjustly denied shall have the right to appeal the matter at any stage of the process by notice to the RA. Such notice shall be delivered to the RA and shall contain the name and contact information for the applicant, a copy of the registration application, a written description of the circumstances involved, and why the applicant believes that his application should be approved.

19.5 If, in the opinion of the requester, the appeal is not satisfactorily resolved by the RA, a written appeal may be submitted within 30 days after the RA's decision to the RA Board, which shall act as the RA's board of appeals, for appropriate disposition. The appeal shall be submitted to the RA Board through the office of the RA. The appeal shall be forwarded by mail by the RA to the RA Board within 15 days after receipt and it shall have a disposition period of 30 days for RA

Board action, unless the next scheduled meeting of the RA Board is within 60 days after the filing of the appeal. If a meeting of the RA Board is scheduled within that time period, the requester may appear before the RA Board to make an oral presentation of his viewpoint.

19.6 Any member of the RA Board who participated in any way in the submission of the registration shall not be eligible to participate in the RA Board's consideration of an appeal.

19.7 The eligible members of the RA Board shall vote on the appeal. A vote of at least two-thirds of those casting ballots and at least a majority of the eligible members shall be required to overturn the decision of the RA.

19.8 The disposition of a formal appeal by the RA Board shall be reported within 10 days to the requester and to the RA at the next scheduled meeting of these groups. In the event a meeting of the RA is not scheduled within 30 days after the disposition action, a report shall be forwarded to the RA by mail within 10 days of the RA Board decision.

20 Complaints

Complaints may be sent to the RA Board regarding the service provided by the RA. All complaints shall be in written form. Complaints shall be service oriented and will not be considered as part of the appeals process. The RA Board will aim to respond to complaints within 90 calendar days of receipt.

Annex A (normative)

Designation of the registration authority

The organization appointed as the registration authority is:

SMPTE Registration Authority, LLC
3 Barker Avenue
White Plains, NY 10601

Annex B (normative)

Designation of the registration authority board

The registration authority board is:

Board of Directors
SMPTE Registration Authority, LLC
3 Barker Avenue
White Plains, NY 10601

Annex C (normative)

Service level definition

The service level definition highlights the changes to the registered entities that may be requested of the Registration Authority (RA), together with the expected response times.

C.1 Request for a new registered entity

Requests for the creation of a new entity must include all the items which are required by this standard for establishing the registered entity.

The RA will validate the completeness of the request and return a positive or negative acknowledgment of receipt within two weeks of receipt of the request. In cases where the request is invalid, the acknowledgment will state the reason or reasons for rejection of the request.

The RA will not take more than ten business days to analyze a request for a single registered entity. In the case of multiple concurrent demands, the RA will treat applications on a first-come first-served basis.

The RA may refuse to create a new registered entity in the following, nonlimitative, list of cases:

- The registered entity does not comply with requirements of the establishing standard;
- The registered entity does not comply with requirements of another SMPTE standard;
- A registered entity already exists which meets the request;
- A registered entity already exists which can be altered to meet the request.

C.2 Maintenance

The RA will maintain the integrity of all registers including adequate backup (such as off-premises storage) as may be agreed between the RA and the RA Board.

C.3 Exceptional circumstances

In exceptional circumstances, the RA Board may agree to allow the RA to modify the response times and priorities in the service level definition.

Annex D (normative)

Accessing RA registries

The registration authority (RA) is responsible for providing access to registers to interested parties. The exact method and facilities may be modified from time to time provided there is prior written agreement with the RA Board.

D.1 The RA will make the registered entities available over the Internet, or an agreed substitute network. In doing so, the RA will generally follow the procedures set forth in annex H of the Procedures for the Technical Work of ISO/IEC JTC 1 on Information Technology, third edition, 1995. There is no restriction on who can access the information. The RA will not charge for the service.

NOTE - Annex H of the JTC 1 Procedures is a web-based document intended to be navigated with a web browser. It is available at URL www.jtc1.org/ (first select committee JTC 1, then select PROCEDURES).

D.2 The user screens will include the SMPTE logo and the wording *SMPTE Registration Authority, LLC*. This wording will appear on all screens. When provided in paper form by the RA, it shall include that same information on each page.

D.3 The RA will ensure that it is capable of satisfactorily handling the peak traffic that is expected under normal conditions.

D.4 The information available on the Internet, or an agreed substitute network, will be the latest master copy of the registered entities. The RA will not be entitled to publish in any way information that is later than that on the Internet master version. In particular, the RA will not be entitled to

publish provisional or interim information if this is not on the Internet version.

D.5 Detailed browsing and searching facilities will be agreed between the RA Board and the RA. It is expected that they will include:

- an ability to download registered entities;
- an ability to search for specific information within registered entities;
- an ability to review the revision history of a registered entity.

D.6 The RA will provide general administrative information over the Internet. This will include:

- information about accessing the information;
- how to request a new registered entity;
- the response times for specific requests;
- the complaints procedure;
- forms for requesting new registered entities;
- information on how to obtain the latest relevant SMPTE standards.

D.7 The RA may provide registered entities in another format. The RA may charge a reasonable amount for such services.

Annex E (informative)

Bibliography

ISO/IEC 2382-1:1993, Information Technology — Vocabulary — Part 1: Fundamental Terms

ISO/IEC 2382-4: 1999, Information Technology — Vocabulary — Part 4: Organization of Data

ISO/IEC 11179, Information Technology — Specification and Standardization of Data Elements