GOV-TA-0001

Documentation for

SFF TA TWG Process Guide

Rev 2.0   July 7, 2021

This guide provides SFF TA TWG participants with the knowledge of the processes the SFF TA TWG follows to accomplish its work. Questions about the content of this document should be directed to the SNIA Technical Council Managing Director at tcmd@snia.org.

POINTS OF CONTACT:

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Suggestions for revisions should be directed to https://www.snia.org/feedback/.

Foreword

This document was authored by the SFF TA TWG, a SNIA Technology Affiliate Technical Working Group. Since its formation as the SFF Committee in August 1990, the membership has included a mix of companies which are leaders across the industry.

For those who wish to participate in the activities of the SFF TA TWG, the signup for membership can be found at https://www.snia.org/sff/join.

Revision History

Rev 1.5   *February 7, 2018*
- Published version

Rev 1.6   *May 24, 2019*
- Added document number (GOV-TA-0001)
- Added template sections on page 2, Revision History, Overview, References and Conventions, and Keywords sections
- Added definitions for editorial and technical comments
- General formatting and editorial changes
- Clarified Expired Document requirements and Comment Submission and Resolution sections

Rev 1.7   *September 16, 2019*
- Corrected bookmarks/ internal document links/ metadata
- Changed several instances of "version numbering" to "revision numbering" for consistency
- Added Appendix B: SFF TA TWG Participant Quick Reference
- Added more information about calendar entries and where to find the *Record My Attendance* button

Rev 2.0   *July, 7, 2021*:
- Added changes per IP subgroup
- Updated copyright language and requirements
- Updated Appendix B
- Updated IP disclosure/ Approval Ballot process based on straw poll results & resultant discussion
- Updated Section 7.2 to more inclusive language
- Various editorial changes

Table of Contents

1 Overview

This document details the procedures that govern the SFF TA TWG.

2 References and Conventions

2.1 Industry Documents

The following documents are relevant to this document:

- GOV-TA-0002   SFF TA TWG Editors Guide
- GOV-TA-0003   SFF TA TWG Style Guide
- GOV-TA-0004   SFF TA TWG Specification Template
- GOV-TA-0005   SFF TA TWG Comment Spreadsheet Template
- GOV-TA-0006   SNIA PowerPoint Template
- GOV-TA-0007   SFF TA TWG INF Cover Page Template
- GOV-TA-0008   SFF TA TWG New Project Guidelines
- GOV-TA-0009   SFF TA TWG Policies & Procedures

2.2 Sources

The complete list of SFF documents which have been published, are currently being worked on, or that have been expired by the SFF Committee can be found at https://www.snia.org/sff/specifications. Suggestions for improvement of this specification will be welcome, they should be submitted to https://www.snia.org/feedback.

2.3 Conventions

The following conventions are used throughout this document:

ORDER OF PRECEDENCE

If a conflict arises between text, tables, or figures, the order of precedence to resolve the conflicts is text; then tables; and finally figures. Not all tables or figures are fully described in the text. Tables show data format and values.

LISTS

Lists sequenced by lowercase or uppercase letters show no ordering relationship between the listed items.

EXAMPLE 1 - The following list shows no relationship between the named items:

a. red (i.e., one of the following colors);
     A. crimson; or
     B. pink;
b. blue; or
c. green.

Lists sequenced by numbers show an ordering relationship between the listed items.

EXAMPLE 2 -The following list shows an ordered relationship between the named items:

1. top;
2. middle; and
3. bottom.

Lists are associated with an introductory paragraph or phrase, and are numbered relative to that paragraph or phrase (i.e., all lists begin with an a. or 1. entry).

NUMBERING CONVENTIONS

The ISO convention of numbering is used (i.e., the thousands and higher multiples are separated by a space and a period is used as the decimal point). This is equivalent to the English/American convention of a comma and a period.

American	French	ISO
0.6	0,6	0.6
1,000	1 000	1 000
1,323,462.9	1 323 462,9	1 323 462.9

3   Keywords

For the purposes of this document, the following keywords apply:

Contribution: Any body of work or suggested fix, solution, or improvement to a Specification provided to the SFF TA TWG by a Member or an external group.

Published: Applies to SFF TA TWG documents that have been endorsed by the SFF TA TWG either by a passing Approval or by a passing *Majority Ballot* depending on the document type (refer to Section 5 in the SFF TA TWG Process Guide (GOV-TA-0001) for more detail). All Published specifications are made available to the public. Not all publicly available documents are Published (e.g., draft documents not yet Published may be available).

4   SFF TA TWG Documents

4.1   Document Types

4.1.1   Document Types Overview

There are 5 *Document Types*: *Specification*, *Information*, *Reference*, *Governing*, and *Support Material*. Refer to the SFF TA TWG Editor's Guide (GOV-TA-0002) and the SFF TA TWG Style Guide (GOV-TA-0003) for information about content and formatting for each document type. Disagreements on document types are to be resolved by *Majority Ballot* (see Section 6.4). For more information on public availability of documents, see Section 4.3.

4.1.2   Specification Documents

4.1.2.1   General Requirements for Specification Documents

Specification Documents are technical specifications typically created by SFF TA TWG members within the SFF TA TWG, labeled as SFF-TA-XXXX (or SFF-XXXX for documents created prior to SFF's migration to SNIA), where XXXX is the specification number assigned when the project was created. All *Specification Documents* shall contain a revision number (see Section 4.2). *Specification Documents* require a passing *New Project Ballot* (see Section 6.1) to initiate work and a passing *Approval Ballot* (see Section 6.3) to be published. *Review Ballots* (see Section 6.2) are optional and may be used at the discretion of the Editor. *Majority Ballots* may be used for a variety of reasons (refer to Section 6.4). Additionally, *Specification Documents* shall undergo a 60-day IP disclosure period (refer to Section 8). The SFF TA TWG Specification Template is available as GOV-TA-0004.

4.1.2.2 Specification Documents Created by External Groups

External groups may bring documents they have authored into the SFF TA TWG to become SFF TA TWG *Specification Documents*. To do so, external groups shall adhere to the following requirements:

- Agree to grant to the SNIA a nonexclusive, worldwide, irrevocable, perpetual, royalty-free license under any copyright in the Contribution to reproduce, display, publish, perform, distribute, and to sublicense these rights to others;
- Agree to grant the SFF TA TWG the right to make derivative work of the Contribution;
- If one was not already conducted during the document's creation, conduct an IP disclosure period within the external group;
- Disclose any IP declared during the disclosure period, whether declared by an SFF TA TWG member or otherwise, to the SFF TA TWG at the time of the *New Project Ballot* to initiate the creation of a new *Specification Document*;
- Both SFF and non-SFF members shall agree to license any IP declared by the SFF TA TWG or the external group according to the [SNIA IP policy](#) (see NOTE below)
- Submit a formal statement of release from an authorized representative of the external group which includes the following:
    - Authorized representative's name and company affiliation;
    - Name of the external group represented;
    - Name of the specification being released;
    - Provide any previously determined IP disclosures.
- Supply the source document and all applicable support material (e.g., drawing files, etc.) with all confidential markings and restrictive legends removed, excluding copyrights;
- Obtain a passing *Approval Ballot* prior to publication. The SFF TA TWG comment resolution process described in Section 7.2 shall be followed, even if it requires technical changes to the document in question. *Review Ballots* may be requested prior to *Approval Ballot* to assist in the document publication process.

NOTE: Failure to adhere to these requirements shall result in the SFF TA TWG's rejection of external documents as SFF TA TWG *Specification Documents*, but they may instead be accepted as *Information Documents*.

4.1.2.3 Specification Documents Originating from Existing Information Documents

Instances in which an SFF TA TWG member wants to create a *Specification Document* from an existing *Information Document* are to be handled on a case-by-case basis at the discretion of the SFF TA TWG Chair and the SNIA Technical Council Managing Director. In these instances, the following items shall be resolved:

1. Status of the originating group;
2. Copyright permissions;
3. Preexisting IP disclosures, copyrights, and licensing requirements; and
4. Disposition intent of the INF document.

4.1.3   Information Documents

Information Documents are documents created by an external group and shared with the SFF TA TWG, so that they can be publicly available. *Information Documents* may not be altered by the SFF TA TWG. *Information Documents* will be labeled as INF-TA-XXXX (or INF-XXXX for documents created prior to SFF's migration to SNIA), where XXXX is the document number assigned when the document was accepted by the TWG. All *Information Documents* shall also contain a revision number (see Section 4.2). *Information Documents* require a passing *Majority Ballot* to be published (see Section 6.4). *Review Ballots* (see Section 6.2) are optional and may be used at the discretion of the Editor. *New Project* and *Approval Ballots* do not apply to *Information Documents*.

External groups bringing documents into the SFF TA TWG as *Information Documents* shall adhere to the following requirements:

- Agree to grant to the SFF TA TWG a nonexclusive, worldwide, irrevocable, perpetual, royalty-free license under any copyright in the Contribution to reproduce, display, publish, perform, distribute, and to sublicense these rights to others;
- Agree to grant the SFF TA TWG the right to make derivative work of the Contribution if contributed after January 1, 2018. Derivative work of these documents is only allowed after a passing *Majority Ballot*;
- If one was not already conducted at the document's creation, conduct an IP disclosure period within the external group;
- Disclose any IP declared during the disclosure period, whether declared by an SFF TA TWG member or otherwise, to the SFF TA TWG at the time of the *Majority Ballot* to publish the creation of a new *Information Document*;
- Submit a formal statement of release from an authorized representative of the external group which includes the following:
  - Authorized representative's name and company affiliation;
  - Name of the external group represented;
  - Name of the specification being released;
- Supply a PDF version of the finalized specification with all the confidential markings removed, excluding copyrights, to the SFF TA TWG Chair at sff_ta_twg-chair@ta.snia.org;
- Agree to adhere a cover sheet to the specification (the cover page template is provided as GOV-TA-0007).

Failure to adhere to these requirements shall result in the SFF TA TWG's rejection of external documents as SFF TA TWG *Information Documents*.

4.1.4   Reference Documents

Reference Document content is not normative. *Reference Documents* created by the SFF TA TWG contain useful content which provides additional information intended to assist the understanding or use of a *Specification*. *Reference Documents* will be labeled as REF-TA-XXXX (or SFF-9XXX with a "REFERENCE" watermark for documents created prior to SFF's migration to SNIA), where XXXX is the document number assigned when the project was created. All *Reference Documents* shall also contain a revision number (see Section 4.2). *Reference Documents* require a passing *New Project Ballot* (see Section 6.1) to initiate work and a passing *Approval Ballot* (see Section 6.3) to be published.

4.1.5   Governing Documents

Governing Documents define SFF TA TWG policies and procedures (e.g. *SFF TA TWG Process Guide*). *Governing Documents* will be labeled as GOV-TA-00XX where 00XX is the document number assigned when

the document was created. *Majority Ballots* (see Section 6.4) are used to approve *Governing Documents*. All *Governing Documents* shall contain revision numbers as defined in Section 4.2.

4.1.6   Support Material

All other documents are considered *Support Material* and are not covered by the *SFF TA TWG Process Guide*. This includes presentations, meeting minutes, etc. *Support Material* is not assigned document numbers but shall contain revision numbers as defined in Section 4.2. *Support Material* will be made available on the SFF TA TWG members site and will be emailed to SFF TA TWG members following the meetings in which they were presented. Creators of *Support Material* are encouraged to use the SNIA PowerPoint Template, which is available as GOV-TA-0006.

4.2   Revision Numbering

Revision numbering assigns unique numbers to unique states of SFF TA TWG documents. Within a given revision number category (major, minor, and draft revision), these numbers are assigned in increasing order and correspond to new developments in the deliverable. It applies to all SFF TA TWG documents as follows:

$$x.y.n$$

Major → Minor → Draft
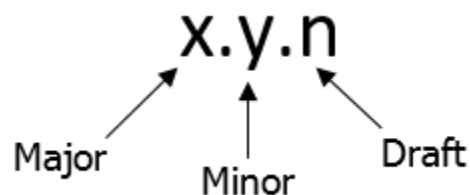
- *Major revision number* – Starts at 1 for newly published documents. Should be increased by one only when major changes are made to the specification. For example, the *major revision number* shall be changed when the new specification will break backwards compatibility with prior revisions of the specification.
- *Minor revision number* – Starts at 0 for newly published documents and is set to 0 when the major revision number changes. If the update to the document is not a major revision, the minor revision number shall be increased by one when the final document is approved for publication.
- *Draft revision number* – Represents the nth draft revision of the document based on the x.y approved version of the document. Starts at 1 for the first draft of a specification. Shall be increased by 1 for each draft revision released by the Editor.
- *Special Note* – Each number (x.y.n) may be a multi digit number; e.g. 1.2.18, 3.15.4, or 12.1.5.

The first draft of a new document shall be revision 0.0.1. Subsequent drafts will increase by "0.0.1" (e.g., 0.0.1, 0.0.2, 0.0.3 …). When the document is approved and published, the *draft revision number* is dropped, and the document number becomes 1.0.

Existing published documents undergoing modification will be Revision x.y.1 for the first draft revision based on the x.y published version of the document; subsequent drafts will increase by 0.0.1. For example, if Revision 1.5 of a published document is being modified, each draft revision released by the Editor for review will be numbered 1.5.1, 1.5.2, 1.5.3 and so forth. Once the final draft document is approved, the *draft revision number* is dropped, and the *major/minor revision numbers* are increased as appropriate. For minor revisions, the revision number increases by 0.1 (e.g., 1.6); for major revisions, the revision number increases such that x increases by 1.0 and y becomes zero (e.g., 2.0).

Editorial changes (see Section 7.3) made to published documents shall use a letter designation appended to the end of the published revision number (e.g., 1.3a). Editorial revision letters start at "a" and then

progress alphabetically. Once a new draft is created, the editorial revision letter is dropped and the document is numbered according to the method described above.

4.3 Public Availability

Draft Documents (*Specification*, *Information*, and *Reference*) will be made publicly available unless the Editor requests they be kept private. If an Editor requests to keep a *Document* private, the SFF TA TWG Chair will notify the SFF TA TWG via reflector posting. If SFF TA TWG Members disagree with keeping the *Document* private, they may request a *Majority Ballot* (see Section 6.4) to approve public release of the *Draft Document*. At least one *Draft Reference Document* shall be made available to the public before publishing.

All *Published* (*Specification*, *Information*, and *Reference*) *Documents* will be made publicly available. *Governing Documents* will be made publicly available on a case-by-case basis at the discretion of the SFF TA TWG Chair.

Support Material used in meetings, such as PowerPoint presentations, may be shared with non-SFF TA TWG members if the author of the material grants permission.

5 Document States

5.1 List of Document States

There are 3 Document States: *Draft*, *Published*, and *Expired*. All Documents shall follow the appropriate document revision numbering convention described in Section 4.2. The document Editor and SFF TA TWG Chair are responsible for reviewing and ensuring that all document requirements are met prior to posting.

5.2 Draft Documents

Draft Documents allow for early public review/comments of all document types (unless requested to be kept private by the Editor; see Section 4.3). All *Draft Documents* shall have a "*DRAFT*" watermark and header on all pages of the document. The date on *Draft Documents* shall reflect the date that the document was submitted for posting.

5.3 Published Documents

Published Documents reflect the work that has been done by the SFF TA TWG and are made publicly available. All *Published Documents* shall have a "*PUBLISHED*" header on all pages of the Document; watermarks are not permitted except for *Reference Documents*. The date on *Published Documents* shall reflect the date that Document was approved for publishing (i.e., the date the appropriate ballot (*Approval* or *Majority*) closed). Once a document is approved for publishing, the Editor shall provide both MS Word and PDF versions to the SFF TA TWG Chair. The Chair then publishes the document to the public website.

5.4 Expired Documents

Expired Documents are documents that are no longer maintained by the SFF TA TWG. *Specification*, *Information*, and *Reference Documents* may be expired. A *Majority Ballot* (see Section 6.4) is required to expire a document. When a document is expired, the reason for expiration (see list below) shall be added to the cover page and the major revision number shall be increased on the cover page only. On all other pages of the document, the revision number shall remain unchanged and an "EXPIRED" watermark shall be added.

Reasons why a document would be expired:

- Superseded: Content moved to another SFF TA TWG document or to another standard (e.g., EIA, IEEE, etc.); a pointer shall be provided to the new specification
- Cancelled: Member requests development of an unpublished document be discontinued
- Voided: Member requests a published document be retracted
- Obsolete: Content is no longer relevant to the industry
- Other: Description shall be specified

6 Ballot Types and Voting

There are four different ballot types: *New Project*, *Review*, *Approval*, and *Majority*. Only SFF TA TWG Member companies may vote in *New Project*, *Approval*, and *Majority Ballots*; one vote from each Member company will be counted per ballot. Since there is no concept of pass or fail for *Review Ballots*, anyone may vote and provide comments. Note there is no requirement of quorum in the SFF TA TWG. The duration of all ballot types may be extended at the discretion of the SFF TA TWG Chair.

NOTE: SFF TA TWG Member companies are companies that have agreed to the [SNIA IP Policy](#), the current SNIA Policies and Procedures, and the SNIA Bylaws and have agreed to pay the annual SFF TA TWG membership fee. Failure to pay the SFF TA TWG membership fee within a reasonable time can result in loss of membership.

6.1 New Project Ballot

New Project Ballots are required for all *Specification* and *Reference Documents*. *New Project Ballots* are required to begin work on new *Documents* or to make changes to existing ones. Requirements for *New Project Ballots* are as follows:

- A brief description summarizing the scope of the changes to be made to an existing document OR the scope of work for a new document
- A named Editor (shall represent an SFF TA TWG Member company)
- At least three supporting Member companies

These requirements and additional guidelines are included in the *New Project Guidelines* (GOV-TA-0008).

New Project Ballots pass after at least 3 SFF TA TWG Member companies have expressed their support. This may either occur via 7-day online ballot, during a face-to-face meeting, or on a conference call. If a *New Project Ballot* passes online, the outcome is recorded in the SNIA website's ballot history. If a *New Project Ballot* passes during a face-to-face meeting or conference call, the SFF TA TWG Subgroup Chair will record the project's initiation in the meeting minutes. Once a *New Project Ballot* passes, the SFF TA TWG Chair will assign an SFF document number (if applicable) and send an email notification to the SFF TA TWG reflector (sff_ta_twg@ta.snia.org). The Editor may then request subsequent ballots as appropriate. If a *New Project Ballot* does not pass, the Editor may submit another *New Project Ballot* at any time.

6.2 Review Ballot

Review Ballots apply to *Specification* and *Reference Documents.* They do not apply to *Information Documents*. With a *Review Ballot*, there is no concept of pass or fail. They are intended to provide feedback to the Editor during the earliest stages of development. When a *Review Ballot* is requested, the Editor shall specify the comment format (spreadsheet or PDF/FDF; see Appendix A). It is recommended, but not required, that the Editor provide additional support documentation, such as a redline copy, when requesting a *Review Ballot*.

Review Ballots are optional and last 30 calendar days. When a *Review Ballot* is requested, the SFF TA TWG Subgroup Chair shall make a PDF version of the draft document publicly available (see Section 4.3). When the *Review Ballot* closes, all comments received are to be addressed by means of the comment resolution process (see Section 7.2) before the Editor requests an *Approval Ballot* or another *Review Ballot*.

6.3 Approval Ballot

Approval Ballots apply to *Reference* and *Specification Documents*; they do not apply to *Information Documents*. *Approval Ballots* authorize the status change of documents from development to published. When an *Approval Ballot* is requested, the Editor shall specify the comment format (spreadsheet or PDF/FDF; see Appendix A). The Editor shall provide a *Draft Reference Document* or a *Draft Specification Document* to the Chair when requesting an *Approval Ballot*.

Approval Ballots last either 14 or 30 calendar days. The first *Approval Ballot* requested for a major or minor revision to a document shall be a 30-day ballot. Subsequent ballots for the new draft of the same major or minor revision (see Section 4.2) may be 14 or 30 days at the request of the Editor.

When an Editor requests an *Approval Ballot*, the SFF TA TWG Chair shall make a PDF version of the draft document publicly available (see Section 4.3). If at least 3 "yes" votes and zero technical "no" votes (see Section 7.1) are received, the *Approval Ballot* passes. Once the Approval *Ballot* passes and all comments received are addressed (see Section 7.2) the document is published (see Section 5.3 for *Published Document* requirements). (NOTE: in the case of *Specification Documents*, a 60-day IP disclosure period shall also be initiated for each major revision of the document; see Section 8 for more information.) If the *Approval Ballot* doesn't pass, the Editor may request a *Review Ballot* or a subsequent *Approval Ballot* (14 or 30 days) after any comments received during the initial 30-day *Approval Ballot* are addressed (see Section 7.2).

6.4 Majority Ballot

A *Majority Ballot* is a 7-calendar day ballot that passes if greater than 50% of the votes cast by eligible SFF TA TWG Member companies, not counting abstentions, were affirmative. *Majority Ballots* are used:

- To resolve disputes on how documents are classified (i.e., *Specification*, *Information*, or *Reference*)
- To approve *Information* and *Governing Documents*
- To decide if previously published documents are to be *Expired*
- To determine if *Draft Documents* may be kept private after requested by the Editor
- To determine if comments received during *Review* or *Approval Ballots* may be deferred to future revisions of a document
- To determine if comments are editorial or technical in nature if there is not unanimous consent
- To determine if changes are considered major technical changes and if a major revision number change should be used for a document revision
- To determine if comments were properly addressed by the Editor if there is not unanimous consent

7   Comment Submission and Resolution

7.1   Comment Submission

Comments are to be submitted via comment spreadsheet (see GOV-TA-0005 for template) or FDF file (see Appendix A) as specified by the Editor. SFF TA TWG Member companies are to attach comments to ballots as votes are cast. Non-SFF TA TWG Member companies are to email comments to the SFF TA TWG Chair (SFF-Chair@snia.org). All comments are to be classified at the discretion of the submitter either as technical or editorial. The following guidelines may be used when determining comment classification:

- Editorial comments:
    - A comment that does not affect the technical description of what is defined in the specification (i.e., "architecture"/ "software")
    - Text that provides clarifications, corrections of spelling or grammatical errors, and formatting changes to document content
    - Examples:
        - Addition of missing text or symbols
            - A change from 90 to 90 N (assuming the unit was mistakenly omitted)
            - A change in a label from "Figure 2" to "Figure 3"
- Technical comments:
    - A suggestion to alter form, fit, or function of the "architecture"/ "software" that is defined within the specification. Changes of this nature to drawings, tables, values, figures, or parameters – as well as concerns regarding intermateability, interoperability, or interchangeability – are considered technical
    - A technical comment addresses matters involving mechanical, electrical, or performance issues, plus any concerns regarding intermateability, interoperability, or interchangeability
    - Examples:
        - A change to a dimension or tolerance that causes mechanical interference between parts or adversely affects electrical performance
        - A change to a memory map byte
        - A change to the test value
            - A change from 90 N to 120 N
            - A change from 120 g to 120 N

7.2 Comment Resolution Process

Once a ballot closes, the Editor shall take the following steps. Note: Additional *Review Ballots* may be requested, and/or additional Editors may volunteer or may be assigned by the Chair at any point during the comment resolution process.

1. **Create a Managed Comment Resolution (MCR) document.** The Editor shall combine all the comments received during the balloting process into an MCR. Additionally, on the first ballot of a major or minor document revision, the Editor shall look at the comment resolution documents from previous revisions of the document (if applicable) and add any items marked as "deferred" (see Item 2.c below) to the MCR. The Editor may choose the format of the MCR (either spreadsheet (see GOV-TA-0005 for template) or PDF/FDF (see Appendix A)).

2. **Address all the comments included in the MCR.** Comments are addressed by assigning one of five conditions to each of the comments in the MCR:
   a. Accepted
   b. Accepted in principle
   c. Deferred to future document revision
   d. Rejected (see note)
   e. Discussion required

   The Editor uploads the MCR, with all comments addressed, to the SFF member site in the appropriate subfolder as Rev 0.

   NOTE: Comments against a specification may be rejected if they contradict the original new project proposal that led to the specification's creation or revision.

3. **Review MCR with SFF TA TWG.** The Editor shall request time on an SFF TA TWG call to review the Rev 0 MCR with the larger group. Any disputes on how comments are classified (technical or editorial) or on how comments were addressed that cannot be settled during an SFF TA TWG meeting are to be settled by *Majority Ballot*. The Editor may find it useful to upload intermediate revisions of the MCR as comments are resolved (e.g., if comment resolution takes more than one meeting). Progress may be documented by appending a letter to the MCR revision number (e.g., Rev 0a, Rev 0b, etc.).

4. **Update the draft document.** Once the TWG has reviewed the MCR and there are no comments that require further discussion (i.e., all comments are assigned one of the first four conditions (a-d) listed above), the Editor shall upload a completed version of the MCR to the SFF member site as Revision 1. The Editor shall also incorporate any necessary changes into a new draft revision of the document under review (following the revision numbering convention for draft documents described in Section 4.2), which shall be uploaded to the SFF member site. The Editor is encouraged to provide both simple markup and all markup versions of this document.

5. **Request another ballot.** To finalize the changes and publish the document under review, the Editor shall request another ballot. The type of ballot depends on the document type and the changes required. *Governing Documents* and *Specification Documents* that include only editorial changes require a *Majority Ballot*. *Reference Documents* and *Specification Documents* that include technical changes require an *Approval Ballot* (14-day or 30-day at the request of the Editor). If the ballot passes, the revision numbering is increased per Section 4.2 and the document is published. If the ballot does not pass, the comment resolution process begins again.

7.3 Post-Ballot Editorial Change Process

This process only applies to editorial changes that were discovered after the *Approval Ballot* for a *Specification Document* has passed or to update the front matter in a document. Technical comments shall not be addressed using this process (see Section 7.1).

The Editor shall create another draft (following the numbering convention defined in Section 4.2) denoting the editorial changes. This draft shall be posted to the SFF member site and reviewed by the Editor, the SFF TA TWG Chair, and a third individual from an SFF TA TWG Member company. If the reviewers agree that no substantive changes were made, their names shall be recorded in the minutes of an SFF TA TWG call or face-to-face meeting and the post-ballot changes may be incorporated into the published version of the document. If the reviewers cannot reach consensus, the contentious changes may not be incorporated into the published document (though the agreed upon changes may be included). The document shall be published according to the revision numbering described in Section 4.2.

8 IP Disclosure

All *Specification Documents* are to undergo a 60-day IP disclosure period conducted by the SFF TA TWG. This disclosure period does not apply to *Reference* or *Information Documents*. NOTE: *Information Documents* undergo IP disclosure periods in the external groups in which they were created prior to being brought into the SFF TA TWG.

If no previous revision of a specification has been through a SNIA request for disclosure, the request for disclosure is required. The SFF TA TWG Chair shall ask for a request for disclosure if major technical changes have been made to a specification (if there is no unanimous consent about what constitutes a major technical change, this shall be settled by Majority Ballot (see Section 6.4)). Additionally, SFF TA TWG members may request additional IP disclosure periods at any time. The SFF TA TWG Workgroup Chair may reject additional requests for IP disclosure if no technical changes have been made to a document since the previous disclosure period.

If required, the 60-day request for disclosure shall be issued on a *Published Specification Document* following publication (see Appendix B for a pictorial representation of this process). The SNIA Technical Council Managing Director will issue the request for disclosure via email to all primary contacts of all SFF TA TWG Member companies.

Once the request for disclosure is completed, the SFF TA TWG Disclosure page is updated to reflect the results. If the *Approval Ballot* passes, the specification is published. If the *Approval Ballot* fails, the specification may be updated and another *Approval Ballot* issued. Another request for disclosure will be issued only if requested.

Appendix A: Creating FDF Files

Editors will sometimes request that comments be submitted in PDF/FDF format. This allows the Editor to compile comments from multiple FDF documents into one, marked up PDF. **Be sure to use the exact file specified when creating FDF files or the Editor will not be able to successfully compile them into one document.** Use the following steps to create FDF files using Adobe Acrobat Reader (Note: Other programs may be capable of generating FDF files using similar steps):

1. Open the PDF file for review.
2. Add comments, highlights, strikethroughs, etc. using the tools available on the comment bar. If the comment button isn't visible, click View >> Tools >> Comments. A toolbar containing the Comment button should appear on the right side of the screen.
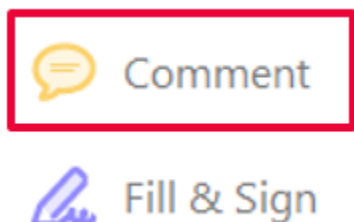
3. When all edits are included, click the Comment button (see above). Then click Options in the upper right-hand corner of the Comments menu (the Options button will either appear as three dots as shown below or as an icon of a bulleted list). Choose "Export All To Data File…"
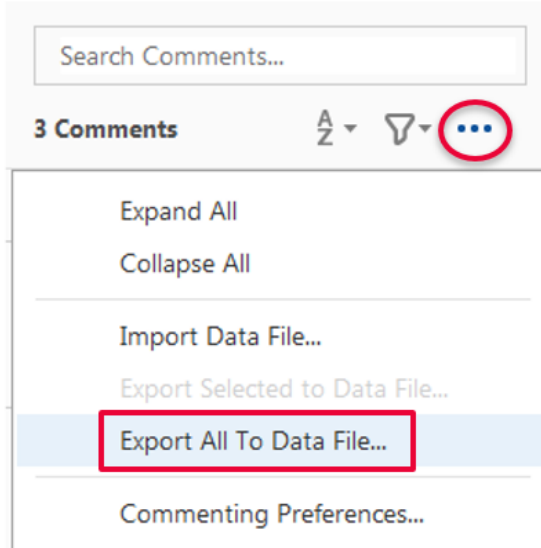
4. Export the file. The file extension will be FDF by default. This FDF file is the one that should be attached to ballots when this format is requested by Editors.

NOTE: When opening FDF files, you may be prompted to locate the original PDF file.

Appendix B: SFF TA TWG Participant Quick Reference

Important Links
- SFF Technology Affiliates public home page:
  - SFF TA TWG public page
  - Public Documents page
- SFF TA TWG Member sites
  - SFF TA TWG
  - Connectors Subgroup
  - Transceivers Subgroup
- SFF TA TWG email reflectors
  - sff_ta_twg@snia.org
  - connectors@snia.org
  - transceivers@snia.org
- Account Signup
  - Create an Account for an Existing Member

Revision Numbering (Refer to Section 4.2)

$$x.y.n$$

Major   Minor   Draft
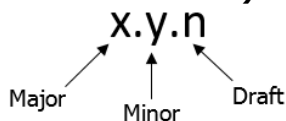
- NOTE: Each number (x.y.n) may be a multi digit number; e.g. 1.2.18, 3.15.4, or 12.1.5.
- Documents that required additional editorial changes after publication contain letters appended to the revision number e.g. Rev 1.3a.

Document States
- Draft (see Section 5.2)
- Published (see Section 5.3)
- Expired (see Section 5.4)
  - Reasons for expiration: superseded, cancelled, voided, obsolete, or other

Ballot Types
- *New Project*: 7 days (see Section 6.1)
- *Review Project*: 30 days (see Section 6.2)
- *Approval Project*: 14 or 30 days (see Section 6.3)
- *Majority Project*: 7 days (see Section 6.4)

Document Types
- SFF (Specification Documents; see Section 4.1.2)
  - SFF-XXXX or SFF-TA-XXXX
  - Created within the TWG or brought in from an external group
  - Shall undergo IP disclosure period prior to publication
  - Requires passing *New Project* and *Approval Ballots* (Review Ballots optional)
- INF (Information Documents; see Section 4.1.3)
  - INF-XXXX- or INF-TA-XXXX
  - Brought in from an external group
  - Shall undergo IP disclosure period prior to publication
  - Requires passing *Majority Ballot* (*Review Ballots* optional)
- REF (Reference Documents; see Section 4.1.4)
  - REF-XXXX or REF-TA-XXXX
  - IP disclosure period does not apply
  - Requires passing *Majority Ballot*
- GOV (Governing Documents; see Section 4.1.5)
  - GOV-TA-00XX
  - Created by TWG
  - Requires passing *Majority Ballot*
- Support material (see Section 4.1.6)

TWG Participant Tips
- If making a presentation, remove any confidential markings before providing to the Chair.
- On conference calls, mute your line when not speaking.
- Record your attendance for calls/ meetings by clicking the *Record my Attendance* button, which can be found in the calendar entry on the SFF TA TWG members site (NOTE: there are separate calendars for the SFF TA TWG and each of the subgroups).

SFF TA TWG Specification Creation Timeline
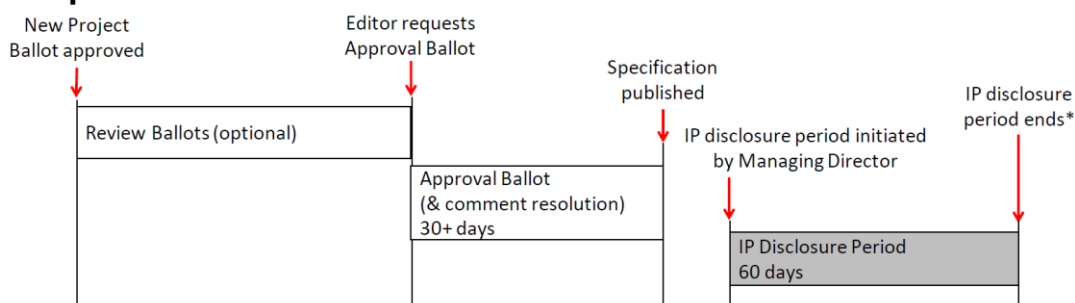
*Disclosed IP is posted to the SFF TA TWG IP Disclosure page