

IAS/PCIC Standards Subcommittee Training Session

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PCIC Meeting
Chicago, IL USA

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Agenda

- Where IEEE Standards Fit into the IEEE
- Standards Board Committees That You Will Work With
- Standards Development Overview
- Working Groups
- Standards Development Lifecycle
 - Stage 1: Initiating the Project
 - Stage 2: Mobilizing the Working Group
 - Stage 3: Drafting the Standard
 - Stage 4: Sponsor Ballot
 - Stage 5: Gaining Final Approval
 - Stage 6: Maintaining the Standard

Where Standards Fit into the IEEE

IEEE Today

The world's largest professional association advancing technology for humanity

- 425,000+ members
- 160+ Countries
- 1300+ Conferences per year
- Publications - Over 20% of world's electrotechnical literature
- Standards
 - 900+ active standards
 - 500+ active projects

IEEE Technical Societies/Councils

- Aerospace & Electronic Systems
- Antennas & Propagation
- Broadcast Technology
- Circuits & Systems
- Communications
- Components, Packaging, & Manufacturing Technology
- Computer
- Computational Intelligence
- Consumer Electronics
- Control Systems
- Council on Electronic Design Automation
- Council on Superconductivity
- Dielectrics & Electrical Insulation
- Education
- Electromagnetic Compatibility
- Electron Devices
- Engineering in Medicine & Biology
- Geosciences & Remote Sensing
- Industrial Electronics
- **Industry Applications** ←
- Information Theory
- Intelligent Transportation Systems
- Instrumentation & Measurement
- Lasers & Electro-Optics
- Magnetics
- Microwave Theory & Techniques
- Nanotechnology Council
- Nuclear & Plasma Sciences
- Oceanic Engineering
- Power Electronics
- Power & Energy
- Product Safety Engineering
- Professional Communication
- Reliability
- Robotics & Automation
- Sensors Council
- Signal Processing
- Social Implications of Technology
- Solid-State Circuits
- Systems Council
- Systems, Man, & Cybernetics
- Technology Management Council
- Ultrasonics, Ferroelectrics, & Frequency Control
- Vehicular Technology

IEEE Standards

IEEE standards fuel the development and implementation of technologies that influence and transform the way we live, work and communicate

- Establish specifications and procedures designed to maximize the reliability of the materials, products, methods, and/or services
- Simplify product development by forming the fundamental building blocks to establish consistent protocols that can be universally understood and adopted
- Address a range of issues including, but not limited to, various protocols to help maximize product functionality and compatibility, facilitate interoperability and support consumer safety and public health
- Make it easier to understand and compare competing products

Ethernet - IEEE Standard Known Around the World

IEEE STANDARDS ASSOCIATION
IEEE

3

YEARS OF ETHERNET STANDARDS

2013 is the 30th Anniversary of IEEE 802.3 Ethernet Standards.

Did you know how much Ethernet impacts our lives every day no matter where we are in the world?

With more than 1.2 billion ports deployed in 2012 alone, Ethernet is a technology that impacts day-to-day life globally. The IEEE 802.3 Ethernet standard is the foundation for today's world of high-speed communications. Ethernet touches a tremendous range of established and emerging technologies, including data-center networks, personal computers, laptops, tablets, smartphones, subscribe access, cellular backhaul, power infrastructure and smart meters, personal medical devices, the Internet of Things and connected cars.

For more information on the IEEE 802.3 Ethernet standards that help transform the way we communicate in our personal lives, at work and at play, visit: standards.ieee.org/events/ethernet

IEEE 802.3™ ETHERNET STANDARDS MILESTONES

- **28 December 2012** | 2012 Revision of Ethernet Std
- **30 September 2010** | Energy-efficient Ethernet
- **17 June 2010** | 40Gb/s and 100Gb/s Ethernet
- **22 March 2007** | Backplane Ethernet
- **6 April 2005** | Ethernet in First Mile
- **12 June 2003** | Power over Ethernet
- **13 June 2002** | 10Gb/s Ethernet
- **30 March 2000** | Link Aggregation
- **25 June 1998** | 1000Mb/s Ethernet
- **20 March 1997** | Full Duplex Ethernet
- **14 June 1995** | 100Mb/s Ethernet
- **28 September 1990** | 10BASE-T
- **10 December 1987** | 10Mb/s Fiber (FOIRL)
- **12 December 1985** | 10Mb/s Repeater
- **23 June 1983** | 10Mb/s Ethernet
- **23 June 1983** | IEEE 802.3 first approved as an IEEE standard
- **22 May 1973** | Ethernet Invented

Social

Transactions

Work

Information Access

Ethernet-Enabled Communications

LIVE	WORK	PLAY
Medical Imaging	Enterprise	Gaming
Automotive	Email	Television
Retail	Cloud	Social Media
Routers	Server	High Def Media

IEEE STANDARDS ASSOCIATION
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IEEE Smart Grid standards



IEEE Guide for Smart Grid Interoperability of Energy Technology and Information Technology Operation with the Electric Power System (EPS), End-Use Applications, and Loads

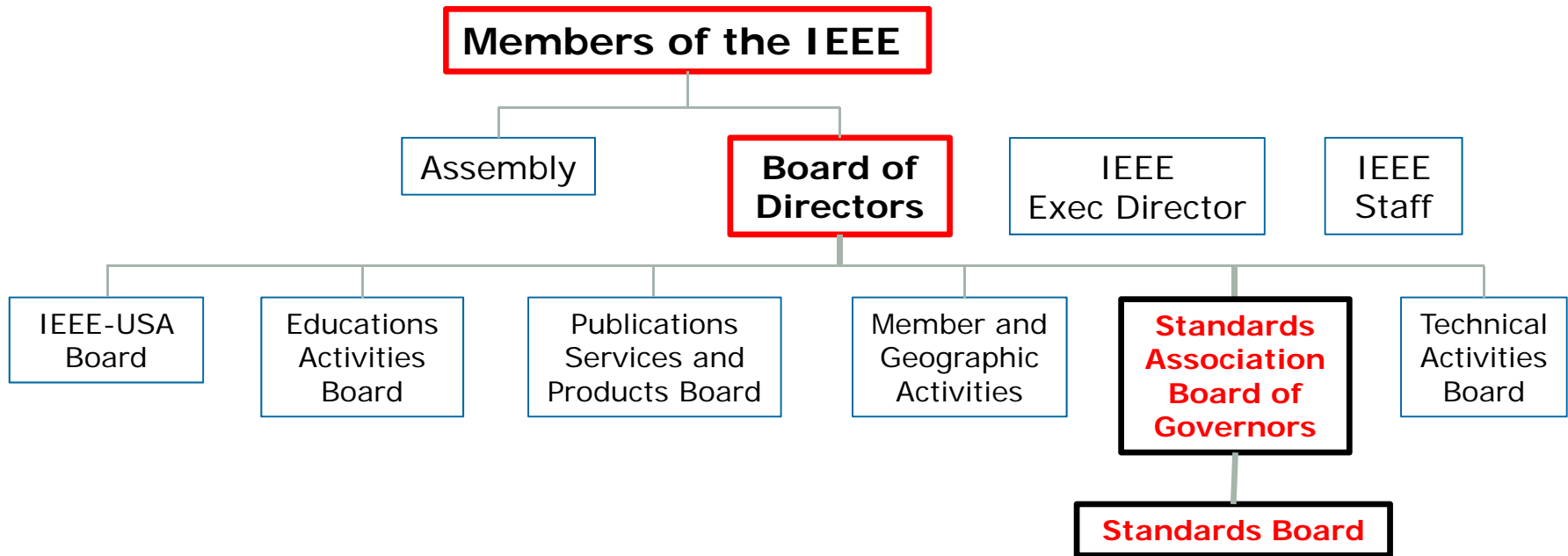
IEEE Standards Coordinating Committee 21

Sponsored by the
**IEEE Standards Coordinating Committee 21 on
Fuel Cells, Photovoltaics, Dispersed Generation, and Energy Storage**

IEEE
3 Park Avenue
New York, NY 10016-5997
USA

IEEE Std 2030™-2011

10 September 2011



Full IEEE org chart: http://www.ieee.org/documents/organization_summary.pdf

Standards Board Committees That You Will Work With

Audit Committee (AudCom)

- Oversees the procedures used in standards development activities by IEEE Sponsors
 - Reviews Sponsor and WG policies and procedures (P&Ps) to assure adherence to the procedures described in the IEEE-SASB Bylaws and IEEE-SASB Operations Manual
 - Makes recommendations as appropriate to advise the Sponsors of necessary changes
- Periodically issues reports when requested by the IEEE-SASB, summarizing its findings and making recommendations as appropriate for Standards Board action
- Develops set of basic Sponsor and Working Group P&Ps for standards development and uses them as a baseline when performing audits of P&Ps

AudCom home: <http://standards.ieee.org/about/sasb/audcom/>

Baseline P&Ps: <http://standards.ieee.org/about/sasb/audcom/bops.html>

Conventions & Guidelines:

<http://standards.ieee.org/about/sasb/audcom/guides.html>

New Standards Committee (NesCom)

- Examines Project Authorization Requests (PARs) and makes recommendations to the IEEE-SA Standards Board regarding approval
- Responsible for ensuring that proposed standards projects are within the scope and purpose of IEEE, assigned to the proper Society or other organizational body, and interested parties are appropriately represented in the development of IEEE standards.

NesCom home: <http://standards.ieee.org/about/sasb/nescom/>

Conventions & Guidelines:

<http://standards.ieee.org/about/sasb/nescom/guides.html>

Review Committee (RevCom)

- Makes recommendations on the approval or disapproval of standards submitted for IEEE-SASB approval or adoption
 - Reviews final results of the ballot and statements submitted by balloters who participated in the development of the standard
 - Indicates that consensus has been achieved and unresolved negative ballots have been properly considered, together with reasons why the comments could not be resolved

RevCom home: <http://standards.ieee.org/about/sasb/revcom/index.html>

Conventions & Guidelines:

<http://standards.ieee.org/about/sasb/revcom/guides.html>

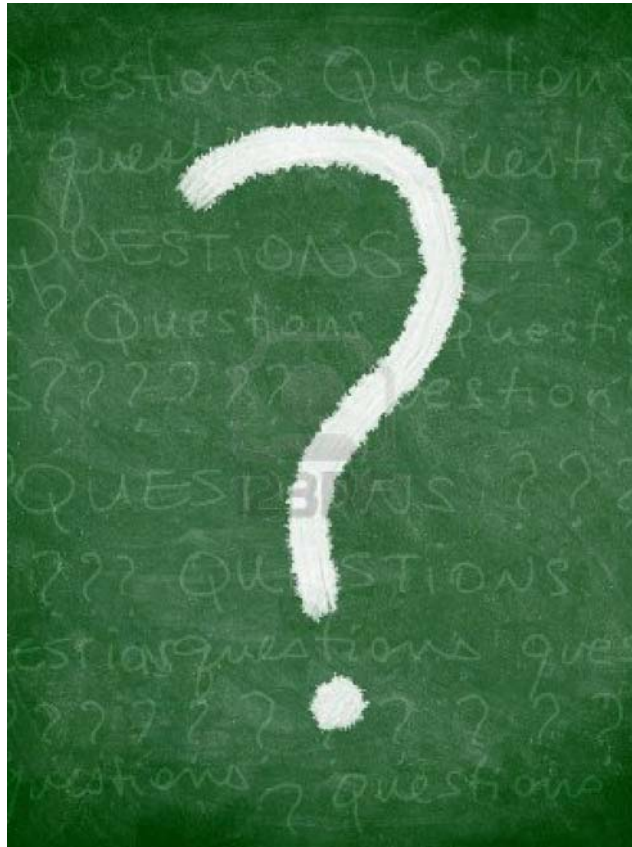
Standards Development Overview

Five Basic Principles

IEEE standards development follows a well-defined path from concept to completion, guided by a set of five basic principles:

- **Due process** - Having highly visible procedures for standards creation and following them.
- **Openness** - All interested parties can participate in the IEEE standards development process
- **Consensus** - A clearly defined percentage of those in a balloting group vote to approve a draft of the standard
- **Balance** - Balloting groups include all interested parties. No one party has an overwhelming influence in the balloting group.
- **Right of appeal** - Anyone may appeal a standards development decision at any point, before or after a standard has been approved.

These imperatives ensure fairness and good standards practice during the development cycle, and help validate approved standards.



Questions?

Working Groups

Working Groups

- Working Groups create and write standards
- Draft development officially begins when the PAR is approved
- Individual-based WG participation is open to everyone
 - Participants do not have to be IEEE or IEEE-SA members
- WGs operate in accordance with a written set of P&Ps that have been approved by the Sponsor
 - For existing WGs, individual becomes member by attendance at two consecutive WG meetings and by request
 - For a new WG, membership is automatically granted upon request
- To ensure representation from all impacted parties and/or balance among the parties affected by the standard, a call for participation can be issued
- Members of a potential WG may meet to work on a PAR and to gain the support of their potential Sponsor. This type of gathering, known as a Study Group (SG), can exist for up to six months before a PAR needs to be submitted.
 - Guidelines for how Study Groups should conduct business are available at <http://standards.ieee.org/develop/corpchan/studygrp.pdf>

Who Needs to Be a Member of IEEE and IEEE-SA?

- PCIC WG Officers need to be members of IEEE and IEEE-SA
 - Info on IEEE-SA Membership:
<http://standards.ieee.org/membership/index.html>
- WG members do not need membership

Standards SC Chair assigns the role of WG Chair in myProject

- WG Chair is appointed by PCIC Chair
- WG Chair joins the activity at the WG level in myProject
 - Log in myProject > **Manage Activity Profile** > Industry Applications Society > Petroleum & Chemical Industry

	<input type="checkbox"/> Petroleum & Chemical Industry	IAS/PCI	William McBride
Working Group →	<input type="checkbox"/> Repair and Rewinding of Electric Motors	IAS/PCI/1068_WG	Charles Yung
	<input type="checkbox"/> IEEE Standard for the Repair and Rewinding of AC Electric Motors in the Petroleum, Chemical, and Process Industries	IAS/PCI/1068_WG/1068	Charles Yung
Project →	<input type="checkbox"/> IEEE Standard for the Repair and Rewinding of AC Electric Motors in the Petroleum, Chemical, and Process Industries - Corrigendum 1	IAS/PCI/1068_WG/P1068-2009/Cor 1	Charles Yung

[Signing up at the **PROJECT** level ensures that you'll receive the invitation to join the ballot group.]

See instructions in **3.1 Manage Activity Profile** of the *myProject User Guide* at

https://mentor.ieee.org/etools_documentation/dcn/11/etools_documentation-11-0014-MYPR-myproject-user-guide.pdf

Standards SC Chair assigns the role of WG Chair in myProject (continued)

- WG Chair provides myProject username to Standards SC Chair
- Using Chair's username, Standards SC Chair assigns the role, generating myProject email notification to WG Chair
- WG Chair logs in myProject and accepts the role.
- After WG Chair accepts the role, *he/she can assign the role of the other WG Officers* in myProject

See **4.5 Assign/Change WG Officers** in the *myProject User Guide* at https://mentor.ieee.org/etools_documentation/dcn/11/etools_documentation-11-0014-MYPR-myproject-user-guide.pdf

Some myProject Tasks for Officers

WG Officers that are assigned to the appropriate roles in myProject can manage

- **The Working Group (Clause 4 of the Abridged Guide)**

- Assign/Change Working Group Officers
- Send a Notification to Group
- PAR/Standard Report

- **The PAR Process (Clause 5 of the Abridged Guide)**

- Submit a PAR
- Modify/Extend/Withdraw an Approved PAR
- Respond to NesCom Comments About a PAR

Abridged myProject User Guide is available at:

<https://mentor.ieee.org/pcic/dcn/13/pcic-13-0004-01-TKIT-abridged-myproject-user-guide-for-wg-officers.pdf>

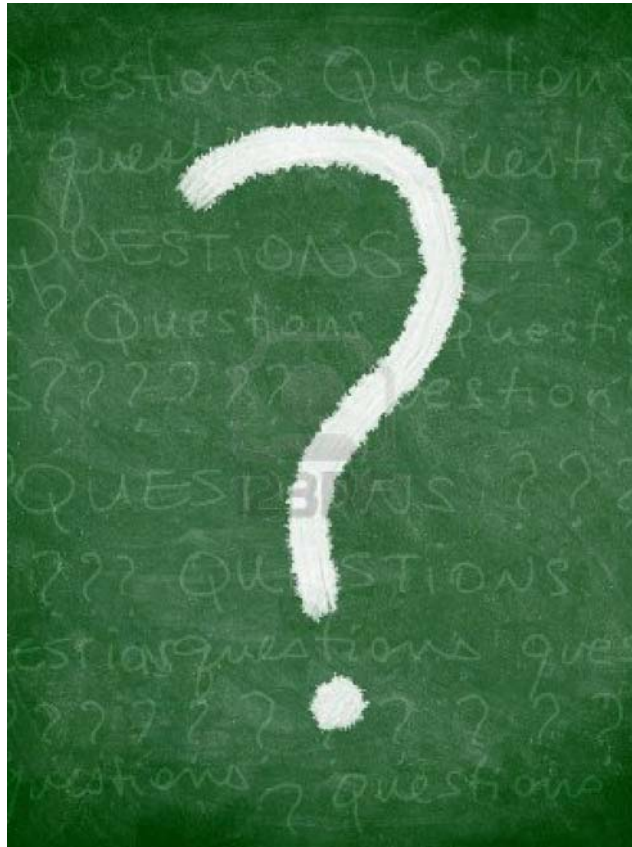
Some myProject Tasks for Officers (continued)

- **Sponsor Balloting (Clause 6 of the Abridged Guide)**
 - Submit a Draft for MEC
 - Initiate Ballot Invitation
 - Reopen/Extend Ballot Invitation
 - Initiate Sponsor Ballot
 - View Ballot Summary
 - Download/Upload Comments Resolution File
 - Initiate Recirculation

- **RevCom Submission & Review (Clause 7 of the Abridged Guide)**
 - RevCom Submission and Review
 - Submit a Project to RevCom
 - View RevCom Submission and Respond to Comments

Abridged myProject User Guide is available at:

<https://mentor.ieee.org/pcic/dcn/13/pcic-13-0004-01-TKIT-abridged-myproject-user-guide-for-wg-officers.pdf>



Questions?

Standards Development Lifecycle

Standards Development Lifecycle

<http://standards.ieee.org/develop/index.html>

The Standards Development Lifecycle

IEEE Standards are developed using a time-tested, effective and trusted process that is easily explained in a six stage lifecycle diagram.

- [Overview](#) What are standards?
- [Policies](#) What are our guidelines?
- [Governance](#) Who oversees the process?
- [Process](#) How are standards made?



← *Click on an arrow for articles about each stage of development.*

Stage 1— Initiating the Project



Draft the PAR

WG drafts the PAR

- PAR: Short, structured, and highly detailed document that essentially states the reason for the project and what it intends to do
- The PAR is a legal document and the means by which a WG assigns copyright to, and gets indemnification from, IEEE
- Submittal deadlines can be viewed by clicking the link to the yearly meeting calendar at <http://standards.ieee.org/about/sasb/nescom/meetings.html>
- For PAR FAQs, a Sample PAR Form (.doc file), and information about project types, see <http://standards.ieee.org/develop/par.html>
- Consider the NesCom conventions at <http://standards.ieee.org/about/sasb/nescom/conv.html>

PAR Submittal

- WG Chair submits the PAR in myProject
 - PAR is placed on an upcoming NesCom agenda, pending Sponsor approval
- NesCom members review the PAR and submit comments in myProject
 - **Review Period:** Starts one week after deadline and closes two days before meeting
 - NesCom is looking for
 - Clarity in PAR title
 - Scope and Purpose statements on the PAR shall be written in present tense, in complete sentences, and with proper grammar as they are intended to appear in the published standard.
 - Complete working group contact/chair person information
 - A completed form – All questions must be filled out
- WG Chair provides timely response to NesCom in myProject
 - Failure to respond is an automatic deferral of the PAR to the following agenda

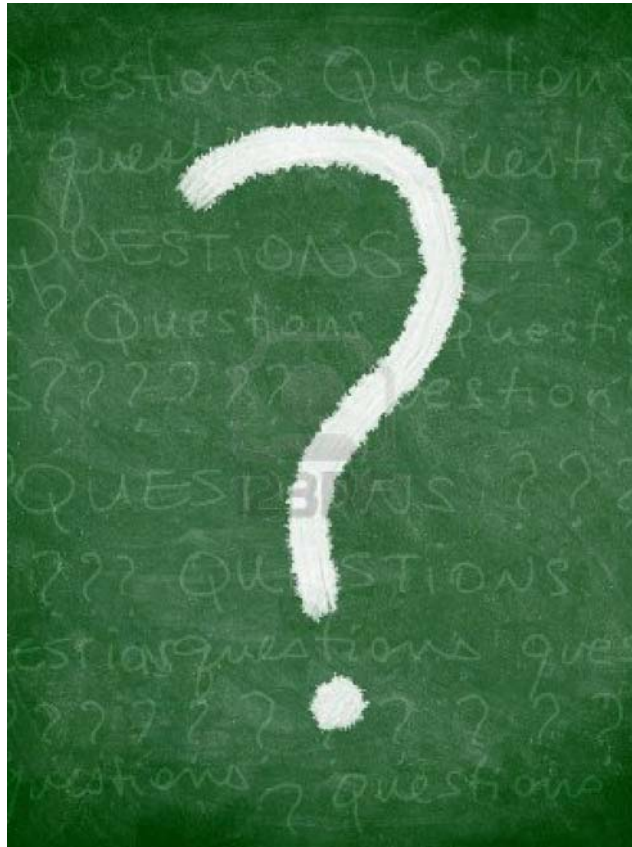
PAR Submittal

- Sponsor Chair approves (or rejects) the PAR
 - **Sponsor Approval Cutoff:** One day before NesCom meeting
- NesCom considers the PAR at the meeting and then recommendations approval to the SASB
 - Approval of the PAR marks the start of the 4-year timeframe to complete the project
 - WG Chair should submit PAR extension requests in myProject during the year of expiration but before the December deadline
 - NesCom decides whether or not to approve that extension
- **Standards Board Meeting** takes place one day after NesCom
 - Continuous Processing meeting: recommendations are balloted to the Board by email.)

Visit <http://standards.ieee.org/about/sasb/nescom/guides.html> and **click the link to the IEEE-SA PAR Submittal Process for information and instructions for all types of PAR requests/actions**

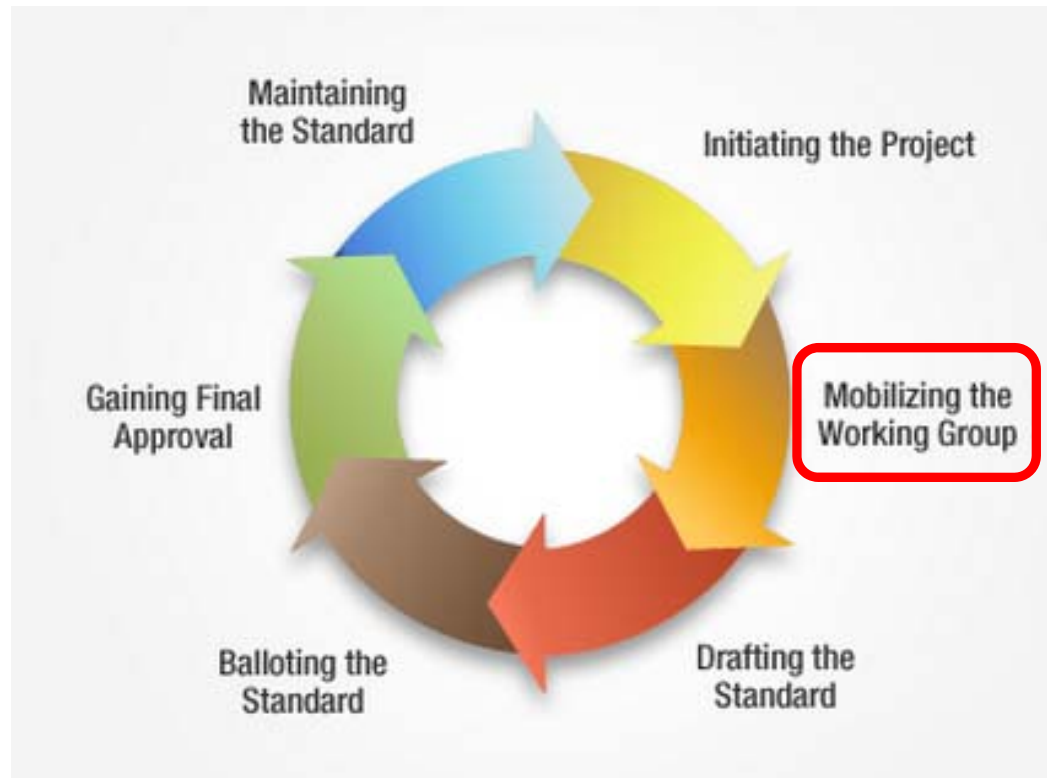
myProject Tasks for Officers: PAR Submission and Approval

- Submit a PAR (IEEE-SA Members)
 - Modify an Approved PAR (WG Chair, Sponsor Chair)
 - Extend an Existing PAR (WG Chair, Sponsor Chair)
 - Withdraw an Approved PAR (WG Chair, Sponsor Chair)
- Accept or Reject a PAR (Sponsor Chair)
- Respond to NesCom about a PAR (WG Chair)



Questions?

Stage 2— Mobilizing the Working Group



Working Group and Its Officers

- PCIC Working Groups shall have a Chair, Vice Chair, and a Secretary
 - WG Chair plans the meetings and organizes the work
 - May delegate assignments for developing parts of the standard to members of the Working Group or Subgroups
 - Vice Chair and Secretary can aid the chair and WG in moving the project forward
 - Vice chair can assist the chair in all areas, including running the meeting when the chair is absent or wishes to recuse him or herself
 - Secretary serves as record keeper, taking and maintaining minutes of meetings, lists of action items, and rosters of attendees
 - The technical editor (if assigned) works specifically on maintaining the draft standard, a process that may be complicated.

WG Operational Guidelines

■ About the WG

- Strives for broad representation of all interested parties
- Participants have strong technical knowledge and expertise in the subject matter, and understand and respect diverse points of view.
- Agendas for WG meetings are distributed beforehand
- WG Chair facilitates the group discussions and offers leadership and guidance to the Working Group.
- Results of the group's deliberations are distributed, usually through meeting minutes
- Individuals work collaboratively to reach consensus in order to move the project to sponsor ballot and ultimately IEEE Standards Board approval

How to Become a WG Member

- For new WGs, membership is granted automatically and upon request
- For existing WGs, membership is granted after a participant attends two consecutive meetings and upon request
- Each member is expected to attend meetings as required by the WG P&Ps
 - The Secretary shall record attendance at meetings
 - Attendance at a meeting via teleconferencing and/or electronic means, e.g., Internet conferencing, shall count towards the attendance requirements

Working Group Membership Status

- Membership status is maintained through consistent participation at meetings and through working group votes
 - If a WG member misses two consecutive meetings, or two consecutive working group letter ballots, his or her voting membership status may be revoked
 - The Chair shall notify, in writing, a member who fails to attend two consecutive meetings and who has therefore lost his or her voting membership
 - A member who lost his or her voting privileges shall have his or her voting privileges reinstated by attendance at two consecutive meetings of the working group and upon request for member status.
 - All voting privileges and rights shall be restored at the second consecutive meeting.
 - If, for reasons of personal hardship, a voting member cannot attend two consecutive meetings (but that member continues to vote in ballots taken between meetings), the working group chair will be consulted on the status of the member.

Working group roster

- A WG officer or designee shall maintain the WG roster
- The roster shall include at least the following:
 - Title of the Sponsor
 - Title of the WG and its designation
 - Officers--Chair, Vice-Chair, Secretary
 - Members (name, affiliation and email for all designations)
 - Designation (voting Member, nonvoting member, or observer)
- Due to privacy concerns, the WG roster shall not be distributed, except to the IEEE-SA staff, IEEE-SA Board of Governors and IEEE-SA Standards Board, unless all members and participants have submitted their written approval for such distribution.

Working group member list

- A WG officer or designee shall maintain a current and accurate membership list.
- The membership list can be posted on the committee web site and can be publically distributed.
- The membership list shall be limited to the following:
 - Title of the Working Group and its designation
 - Scope of the Working Group
 - Officers: Chair, Vice-Chair, Secretary
 - Members (name, affiliation for all designations)
 - Designation (Voting Member, Non-Voting Member, or Observer)

Sample WG Meeting Agenda

1. Call to Order
2. Roll Call or Introductions and Disclosure of Affiliation
 - a. Each participant's affiliation shall be disclosed at any WG meeting.
 - b. A meeting attendee who fails to disclose affiliation shall not accrue any membership rights, including rights of or towards voting membership, until such disclosures have been made.
 - **Affiliation FAQs:** <http://standards.ieee.org/faqs/affiliation.html>
 - c. Assess if quorum achieved
3. Call for Patents
 - a. Distribute this link to the IEEE-SA patent slideset in the meeting agenda: <https://development.standards.ieee.org/myproject/Public/mytools/mob/slideset.ppt>
 - b. Record in meeting minutes that call for patent was made; record the response(s)
 - c. When informed , WG Chair shall request LOA from patent holder
 - **IEEE-SA Patent Materials:** <http://standards.ieee.org/about/sasb/patcom/materials.html>
4. Approval of the Agenda
5. Approval of Previous Meeting Minutes
6. Standards Development
7. Any other Business (AoB)
8. Adjournment

WG Collaboration Tools

■ Mentor Collaboration Tool

- **SA Server-based tool**
- **Features:** documents, mail, calendar, ePolls, wiki
- Groups using Mentor: PCIC, 1349

■ Central Desktop (CD) Collaboration Tool

- **Cloud-based tool**
- **Features:** files and discussions (sent via email), project management (tasks and milestones), blog, calendar
- Groups using CD: 844, 45.1, 45.5

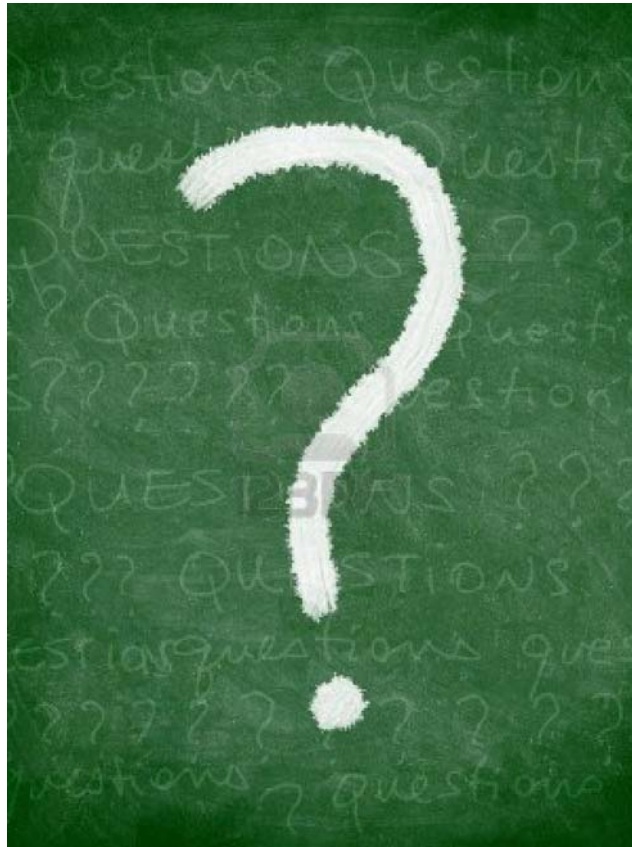
■ Central Desktop and Mentor

- Features comparison available at <https://mentor.ieee.org/pcic/dcn/13/pcic-13-0003-00-TKIT-mentor-vs-cd-comparison.pdf>

■ Listserv: Some groups prefer an IEEE listserv instead of the Mentor email alias because subscribers are not tied to the WG roster in myProject.

- Listserv overview: <http://elecomm.ieee.org/maillist.shtml>

Send requests for info or tools to Lisa Perry at l.perry@ieee.org



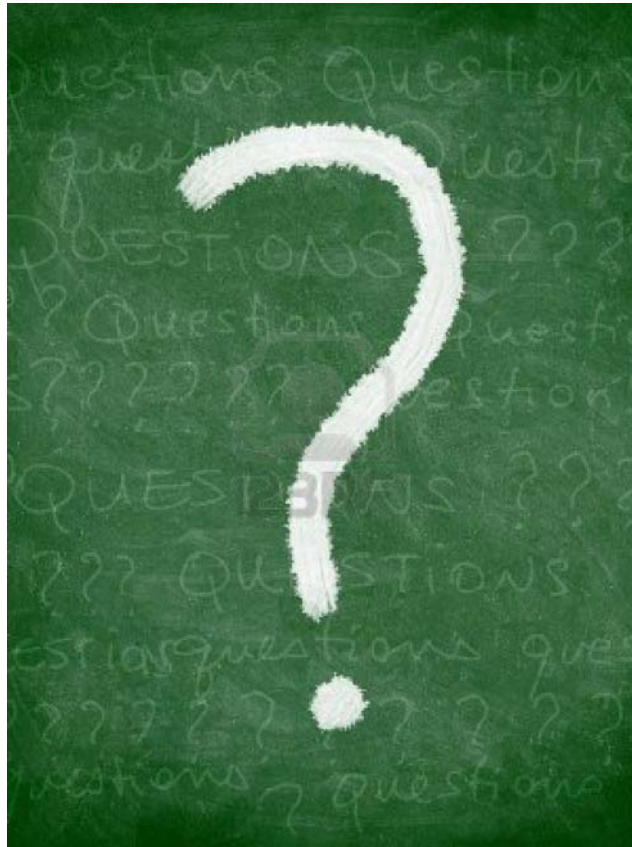
Questions?

Stage 3— Drafting the Standard



Draft Development

1. Develop an outline of the draft
2. Assign writing among working group members
 - Avoid writing document in meetings
3. Option to appoint a technical editor.
 - The technical editor gathers inputs and ensures technical consistency.
4. Refer to the IEEE Standards Style Manual for document structure
 - <https://development.standards.ieee.org/myproject/Public/mytools/draft/styleman.pdf>
 - IEEE-SA project editors are available to answer questions on style and formatting
5. Do not share the draft, or contributions to the draft, with anyone outside of the Working Group.



Questions?

Stage 4— Balloting the Standard



The WG Votes to Approve the Draft Standard for Sponsor Ballot

- Consensus in the WG - draft is ready for sponsor ballot
 - Initiate the Invitation
 - Submit the draft for MEC (Mandatory Editorial Coordination)

Mandatory Editorial Coordination

1. Mandatory Editorial Coordination (MEC) ensures that basic elements of the document, such as draft labeling, copyright statements and releases are all handled properly in the draft.
2. When the WG is ready to send the draft to ballot, the draft is submitted to the IEEE-SA project editors for the MEC.
 - MEC submission form:
<http://standards.ieee.org/develop/mecform.html>
 - What the editors check for:
http://standards.ieee.org/develop/draft_cklst.pdf
3. **The MEC is usually started when the ballot invitation opens. Both typically complete within 30 days.**
4. The MEC report contains two sections:
 - a. Items/issues that shall be resolved before balloting begins.
 - b. Items/issues that shall be resolved before the final recirculation. These issues have to be resolved and viewed by balloters.

Sponsor Balloting

- 1. Ballot Invitation** - Opened for at least 15 days (typically 30 days) in myProject.
 - a. Invitation sent to your choice of IEEE Societies, Sponsors, WGs, and external email lists.
 - b. Must be IEEE-SA Individual Member to join Individual ballots , or pay per-ballot fee (links for options are included in the ballot notification).
 - c. Balloters shall classify their relationship relative to the scope of the draft standard (e.g. producer, user, academic, government).
 - d. The ballot group shall be balanced. No group (classification) shall constitute more than one-third of the balloting group membership. Sponsors may define additional classifications.
 - e. Invitation may be extended or reopened to increase/balance the ballot group.
 - f. Balloting shall begin within 6 months of when the ballot invitation closes.

- 2. Ballot Opens** - WG Chair, Sponsor Chair, or a designee submits draft for balloting in myProject. Ballot opens when Staff Liaison approves the request.
 - a. Balloters notified that ballot opens
 - b. Ballot opened for at least 30 days

Sponsor Balloting (continued)

3. **Balloters Vote** - Approve, Do Not Approve, or Abstain.
4. **Comment Resolution** – WG responds to ballot comments in myProject.
 - a. WG shall respond to all comments.
 - b. Response should show that the WG seriously considered the comment.
 - c. The WG shall make a reasonable attempt to resolve all *Do Not Approve* votes that are accompanied by comments.
 - d. Editorial comments addressing grammar, punctuation, and style, whether attached to an *Approve* or a *Do Not Approve* vote, may be referred to the publications editor for consideration during preparation for publication
 - e. SASB Operations Manual on comment resolution:
<http://standards.ieee.org/develop/policies/opman/sect5.html#5.4.3.3>

Sponsor Balloting (continued)

5. **Recirculation Ballot** – Required if substantive changes were made to the draft, or if there are any unresolved *Do Not Approve (with Comments)* votes (not editorial comments).
 - a. Until 75% approval is achieved, comments can be based on any part of the document.
 - b. Once 75% approval is achieved, comments shall be based only on the changed portions of the draft, portions of the draft affected by the changes, or portions of the draft that are the subject of unresolved comments associated with *Do Not Approve* votes.
 - c. Recirculation ballots are opened for at least 10 days.
 - d. Balloters can change their votes during a recirculation ballot (on changed text or text associated with a negative vote)

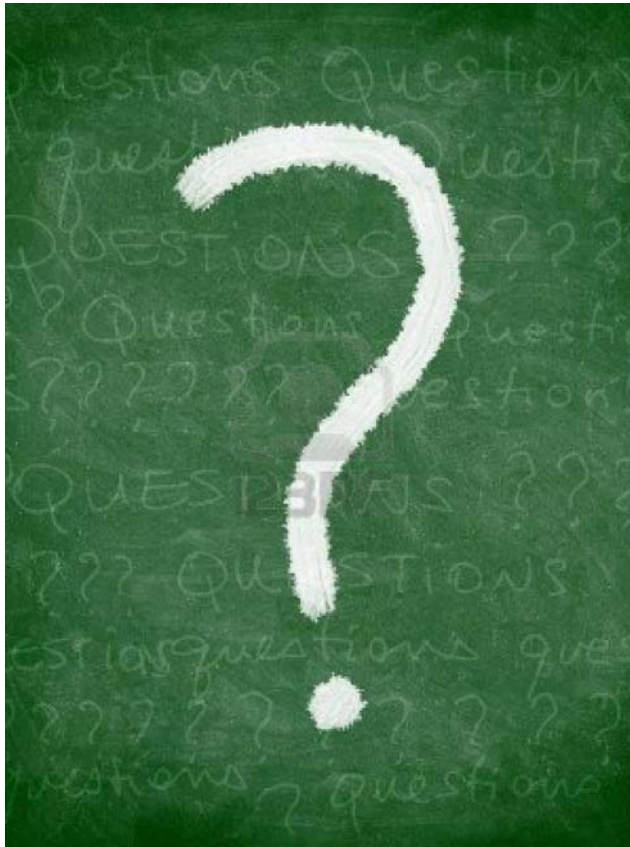
6. **Balloting Completes** – The IEEE consensus requirement is met when the following is achieved:
 - a. At least 75% of the ballot group voted
 - b. Fewer than 30% of the ballot group voted *Abstain*
 - c. The number of *Approve* votes is 75% or more of the total *Approve* and *Do Not Approve (with Comments)* votes.

myProject Tasks for Officers: Balloting

- Initiate Ballot Invitation
- Reopen/Extend Ballot Invitation (if needed)
- Initiate Sponsor Ballot
- View Ballot Summary
- Comment Resolution
 - Resolution Status Definitions
 - Respond To Ballot Comments Individually
 - Download Comments Resolution File
 - Upload Comments Resolution File
- Initiate Recirculation (if needed)

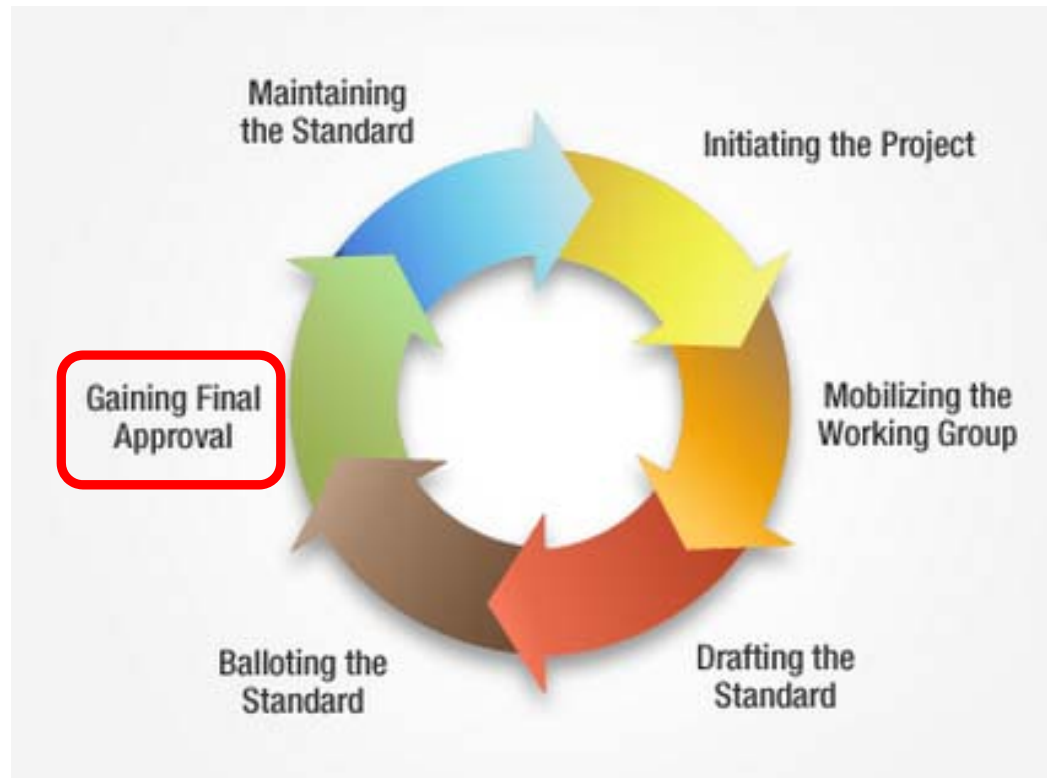
Ballot Resolution – How It's Done and Who Does It?

- The Working Group is responsible for responding to all comments
 - Ballot resolution - WG response to balloters' comments
 - WG officers
 - Entire WG
 - Ballot resolution committee (BRC) (selected by Chair representing various interests)
- How to Address a Negative Balloter?
 - In myProject (responses are seen by balloters during the recirculation)
 - In writing (WG response sent by the Chair to the balloter via email)
 - Balloter has option to change negative vote to affirmative in writing (e.g., reply to email)
 - The written change in vote must be submitted to RevCom and recirculation is not necessary



Questions?

Stage 5— Gaining Final Approval



Submit Draft to RevCom

1. The draft standard is ready to submit to the RevCom for approval when the following is met:
 - a. Consensus voting requirements met
 - b. All comments are responded to
 - c. All comments accompanying *Do Not Approve* votes have been circulated to the ballot group
2. WG chair, Sponsor Chair, or a designee submits the draft with other documentation to RevCom in myProject
3. RevCom members review the draft and balloting documentation and submit comments
 - RevCom checklist:
<https://development.standards.ieee.org/myproject/Public/mytools/approve/subchecklst.pdf>
4. WG Chair responds to RevCom comments
5. RevCom recommends approval of the draft standard to the SASB
6. SASB approves the draft standard

Publish the Standard

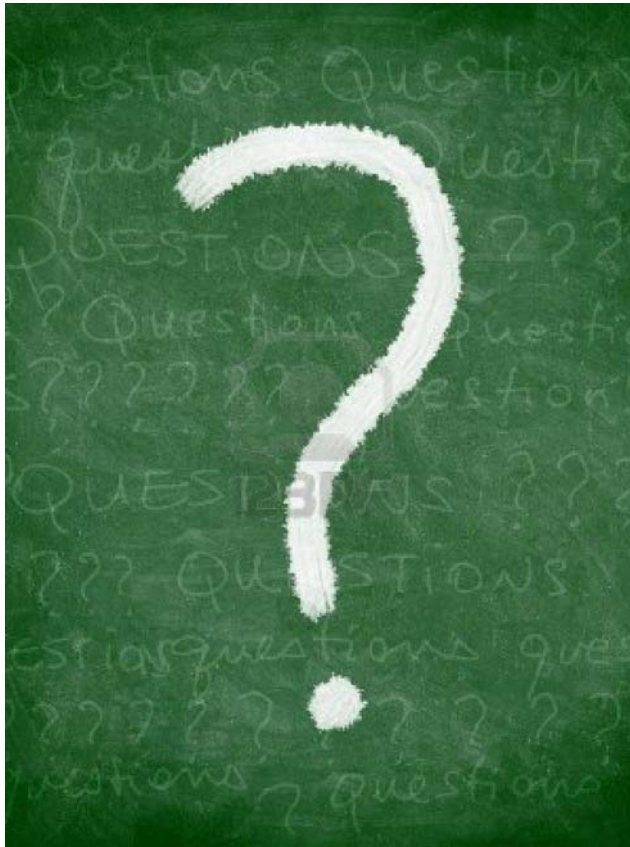
1. After the IEEE-SASB approves the standard, an IEEE editor edits the document to ensure that the standard is grammatically and syntactically correct using American English.
 - a. The editor cannot make any changes that affect the technical meaning of the standard.
 - b. The editor can make rewordings, editorial changes, and formatting changes to assist in publication of the standard.
 - c. The editor ensures that the document meets the rules in the IEEE Standards Style Manual.
2. Chair reviews the edited standard
 - a. The IEEE editor will discuss any questions or potentially problematic changes with this contact.
 - b. The contact will also receive the final standard to review and approve prior to publication.

Publish the Standard

3. The primary contact is responsible for reviewing the edited and formatted pages to ensure that no errors have crept into the document during the editorial and publishing process.
4. After review and inclusion of any changes, the document can be published and disseminated as an IEEE standard!
5. WG members receive complimentary copies of the standard

myProject Tasks for Officers: Balloting

- Submit a Project to RevCom
- View RevCom Submission and Respond to Comments



Questions?

Stage 6— Maintaining the Standard

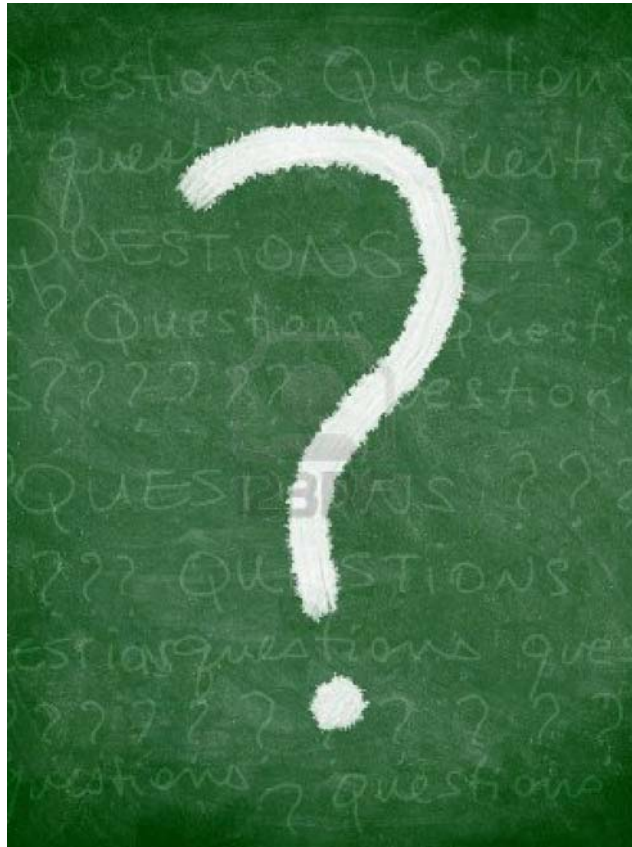


Maintain the Standard

1. Effective 1 January 2012, the status of a standard will be either active or inactive.
2. Standards must have a revision approved by the IEEE-SASB prior to the close of year 10 in order to remain active.
3. A **revision** action can result in:
 - a. Changes to the standard
 - b. Changes to only the references or bibliography
 - c. No changes
 - If no changes are made the standard will retain its designation (i.e., the year will not change).
 - The title page will reflect the fact that a maintenance action occurred but no changes were made.

Maintain the Standard

1. In between revisions of a standard the Sponsor may develop:
 - a. Amendments*: Documents that contains new material to an existing IEEE standard and may contain technical corrections to that standard.
 - b. Corrigenda*: Documents that only contains technical corrections to the standard.
2. An *Erratum* is prepared when an editorial error is found in an approved IEEE standard that represents a deviation from the standard as approved by the IEEE-SA Standards Board and that could result in misinterpretation of the standard.
3. Standards that are no longer useful or contain significant obsolete or erroneous information should be recommended for **withdrawal** by the Sponsor.



Questions?

Contact Information Page

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