802.3 Primer for Baselines

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(Based on a presentation from Marek Hajduczenia
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Outline

- IEEE 802.3 Q&A

- Baseline Proposals

- Tasks & Responsibilities of Project Editors

IEEE 802.3 Q&A

Keywords (I)

- IEEE Std 802.3 uses a number of keywords with specific accepted meanings:
  - The word **shall** indicates **mandatory requirements** strictly to be followed in order to conform to the standard and from which no deviation is permitted (***shall** **equals** **is required to***).
  - The word **should** indicates that among several possibilities one is recommended as particularly suitable, without mentioning or excluding others; or that a certain course of action is preferred but not necessarily required (***should** **equals** **is recommended that***).

Keywords (II)

- IEEE Std 802.3 uses a number of keywords with specific reserved meaning:
  - The word **may** is used to indicate a course of action permissible within the limits of the standard (***may*** equals ***is permitted to***).
  - The word **can** is used for statements of possibility and capability, whether material, physical, or causal (***can* equals *is able to***).
  - The use of the word **must** is deprecated and shall not be used when stating mandatory requirements; **must** is used only to describe **unavoidable situations**.
  - The use of the word **will** is deprecated and shall not be used when stating mandatory requirements; **will** is only used **in statements of fact**.

Normative / Informative

- Normative text is information that is **required** to implement the standard and is therefore officially part of the standard:
  - The main clauses of the documents including figures and tables
  - Footnotes to tables
  - Footnotes to figures
  - Annexes marked as "(normative)"
- Informative text is provided for **information only** and is therefore not officially part of the standard:
  - Frontmatter
  - Notes to text, tables, and figures
  - Footnotes within text
  - Annexes marked as "(informative)", (e.g., Bibliography)

PICS

- Protocol implementation conformance statement (PICS) provides a list (in the form of a series of subclauses and tables) of mandatory and optional requirements listed in the given clause.

- The supplier of a protocol implementation that is claimed to conform to the specific Clause shall complete the PICS proforma for the given Clause listed in the specific subclause(s).

FrameMaker

- FrameMaker is the software tool used by 802.3 WG (and larger IEEE as well) for the development of draft amendments and base standards.

- 802.3ch is currently using FrameMaker 12

BASELINE PROPOSALS

What is baseline ?

- Baseline Proposal is not baseline just because you used "baseline" in the title slide or in the motion

- Baseline means that the given proposal is widely accepted (has many supporters) and it is technically complete (enough) to be included in the draft

- A baseline proposal must contain sufficient detail so that an editor can draft text without having to invent significant technical details

  – baseline proposals must be complete and definitive
  – options, choices, items that are "to be defined" are undesirable but are allowed for initial draft versions (we need to start somewhere)

Working towards baselines (I)

- During its initial technical work, the TF reviews and evaluates concrete technical proposals for specific features to meet the project objectives

- Technical proposals are usually presented in the form of a slide deck / white paper

- Proposals evolve and may be refined over the course of a few meetings
  - Details are "fleshed out", bugs and issues are resolved

- Competing proposals are welcome!
  - Only one will eventually prevail and be included in the draft. Options are typically **<u>not</u>** welcome !

Working towards baselines (II)

- TF members must study all of the proposals
  - Everyone will need to understand specific proposals in order to vote on them in an educated manner
  - Make your proposals clean and seek consensus / support ahead of time
  - Some proposals will die for lack of support – you're the only one responsible for making sure the proposal is successful, so seek consensus ahead of the meeting time
- The best proposals gain support over time and become <u>baseline proposals</u> for the given feature

How many baselines are needed ?

- In a major project (such as P802.3av), multiple baseline proposals must be developed to address all objectives
  - see http://www.ieee802.org/3/av/public/baseline.html
- Baseline development requires coordination
  - For example, PMDs must work with PMAs, and vice versa
- A coherent set of baseline proposals can be pulled together in to what is referred to as a "blue book"
  - In the good ol' days, we actually bound the printed proposals into a book
  - Now, we try to pull separate smaller baselines into one larger, more complete contribution with wider support

Selecting baselines

- Typically, various proposals are submitted for the given feature (e.g., FEC code selection)

- To select the one and only proposal that gets to be called a <u>baseline</u>,
  - In a series of votes, baseline proposals are voted up, or down. ≥ 75% votes is required for adoption
  - Once approved, ≥ 75% votes is required to change baseline
  - Once draft is created, changes to technical details are done through comments (and still require ≥75% votes in case of controversial changes)

Baselines and draft

- Once a coherent set of baseline proposals has been adopted, the editorial team goes to work, preparing the first official TF draft
    - Number of baselines required for the first version of the draft differs from project to project.
    - As an example, P802.3av collected more than 30 baseline proposals before the work on the draft was actually started. P802.3bf needed only one baseline proposal to get the draft development started.
    - The quality of baseline proposals should always go before the quantity. Getting fewer but more complete proposals is always better than separating them into small pieces and taking many motions.

TASKS & RESPONSIBILITIES OF PROJECT EDITORS

Project Editor(s)

- The editorial team consists of volunteers from the TF with proper skills (technical and editorial)
  - Usually appointed by the TF chair, and confirmed by the TF
  - "Editor-in-Chief" supervises and coordinates the work of the editorial team (Associate Editors), working on individual tasks
- Each editor gets at least one clause to work on, depending on experience, skills, and free time
- Initial versions of the draft require substantial quantity of time and attention to detail
  - Later on in the process, more time is spent handling comments

Project Editors' Duties

- Consolidate all approved baselines into the draft
- Ensure style and format of the draft is consistent with the official IEEE Style Manual (current version: 2012)
- Make sure text is grammatically correct
- Editors DO NOT:
  - Create text of draft based on bullets from PowerPoint presentations (we also have paying jobs to do)
  - Fill in missing technical details from baselines (any TBDs from baselines will be included in the draft as well)
  - Get into your head to figure out what you want to say. We will not rewrite text for you – make your proposal clear from the get go.

Keeping Your Editors Happy

- Editors spend a lot of time between meetings working on the draft, incorporating baselines and received comments

- Keeping Editors happy is simple:
  - Provide us with complete baseline materials (editable files in Word / FrameMaker / plain text, including all the necessary text, figures, drawings, code, etc.)
  - Do not expect us to come up with descriptive text – if it is not included in the approved baseline, it will not be included in the draft.
  - Editors in 802.3 perform **<u>editing</u>** – they do not write the spec from scratch on their own, produce missing technical features, or resolve technical conflicts between baselines

Preferred File Formats (I)

- For text:
  - Word (.doc(x)), FrameMaker (.fm), plain text (.txt)
  - Excel (.xml(x)) works fine for table data
  - PDF files are acceptable for text ONLY !!!

- For drawings / figures
  - Editable formats are welcome: FrameMaker (.fm), Visio (.vsd) for simple content copying
  - Similar to existing 802.3 figure?: Mark up the existing figure (in color) to show the differences for this Clause
  - Reproducing drawings from non-editable formats (jpg, bmp etc.) takes extra time and we do not guarantee high fidelity

Preferred File Formats (II)

- PPT(X) contributions take very long time to convert into draft and usually end up being incomplete
  - please avoid them for anything more complex than a simple text contribution
  - Use this to present your proposal to the group and provide an accompanying text file (see preferred formats on previous slide) for the proposed baseline text