

Open Source Implementation for IEEE Standards

IEEE-SA Corporate Advisory Group
Ad Hoc on Open Source

Agenda

- Effort
- Open Source Pilots
- Next Steps

Effort

- Since 2015, the CAG Ad Hoc has
 - Reviewed various support structures needed to support OS development in IEEE
 - Josh Gay was brought on as the new IEEE-SA OS Community Manager
 - Analyzed various OS platforms (GitLab, GitHub, other Git options)
 - Considered several OS licensing options
 - Invited IEEE groups currently developing OS code to participate in pilot projects
 - Consulted with other OS communities about IEEE's effort and the best way to engage OS collaboration
- OS Streams were created to advance the efforts for use cases, pilots, IPR, and marketing
 - Approximately forty (40) participants who expressed interest
 - Seven (7) use cases were identified
 - Three (3) open source licenses were evaluated
 - Several IEEE groups have expressed interest in being pilots

Effort

- Use cases
 - Test & Tools Framework
 - Reference Example Implementation
 - Informative Portion of a Standard
 - Normative Portion of a Standard (exception rather than norm)
 - IEEE (but not IEEE-SA) OS Project
 - Non-IEEE OS Project
 - IEEE-SA Non-Standard Open Source Project
- IEEE Projects Expressing Interest as Pilots
 - IEEE 802[®] YANG
 - IEEE P1076[™] VHSIC Hardware Definition Language (VHDL)
 - IEEE P21451-1-4[™] Standard for a Smart Transducer Interface for Sensors, Actuators, and Devices - eXtensible Messaging and Presence Protocol (XMPP) for Networked Device Communication
 - IEEE P1451-99[™] Standard for Harmonization of Internet of Things (IoT) Devices and Systems
 - IEEE P370[™] Electrical Characterization of Printed Circuit Board and Related Interconnects at Frequencies up to 50 GHz

Effort

- IEEE Open Source Environments
 - GitLab (pilots)
 - GitHub
- IEEE Staff and Legal Support
 - Josh Gay, IEEE Standards Open Source Community Manager
 - External counsel with expertise in open source
- Outreach
 - Leading Open Source organizations
 - Open Source conferences

Open Source Pilots

- IEEE invited groups interested in developing open source material to participate as pilots
 - Intent of pilots is to work with IEEE-SA as it develops protocols, processes, learning collateral, and other information to help inform the direction taken in establishing an open source platform for IEEE
 - Pilots will allow IEEE to understand current and possible future open source development within IEEE
 - Participants in pilots will be able to help IEEE-SA frame the volunteer and staff support, as well as tools that will be needed
- Steps for volunteering as a pilot
 - Complete the Open Source Information Request Form
 - Form can be obtained by contacting m.aranzamendez@ieee.org
 - Once accepted as a pilot
 - All contributors (for any material submitted wrt the open source development) shall submit an appropriate Contribution License Agreement (CLA)
 - A GitLab area will be established where all relevant material can be uploaded for initial review (including IPR review) by the Community Manager

Next Steps

- Pilots initiated for the various use cases
 - IEEE 1076 an active pilot
 - Additional pilots will be accepted
- Define Open Source development processes/protocols for pilots
 - Can be used in review by IEEE and SASB
- Handoff to IEEE-SASB for consideration of implications to IEEE standards development process and associated policies and procedures
- Discussion on IEEE level with respect to governance of IEEE open source initiatives
 - Will need to take under consideration IEEE Standards as one source of IEEE OS activity

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