The ASAM Open Model

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Motivation

- Increased accessibility encourages adoption of standards
- Much larger community, more feedback
- Encourage sharing and collaboration in the automotive industry
- Faster development of the OpenX ecosystem through much larger pool of contributors



The ASAM Open Model

- Two levels (selection is project specific)
 - 1. Open Release
 - Releases are selected by the project group (via majority vote)
 - all resources, including source code, libraries and tooling are made available to the public free of charge
 - Code contributions by non-project members are not permitted
 - Bug reports or issues can be reported by non-project members
 - 2. Open Source
 - The entire workflow is open, every change & discussion is available to the public
 - Contributions by non-project members are permitted



Project Roles

Development Team

- Contributor Write code/content
- ASAM CCB Review and merge contributions with ASAM official content. Minimum of 3 defined in proposal
- Project lead project coordination & alignment with ASAM
- Service provider Provide financed support in some capacity (e.g. content contributions, technical writing, test review)

Administrative Team:

- Assist project coordination
- Maintain ASAM tool infrastructure



Repository Structure

Mit Headline, Subheadline und Aufzählung

- Minimum of two protected branches per project
 - Project → ASAM CCB and ASAM office can merge
 - Release → ASAM office can merge
 - Additional branches may be declared protected via majority vote of the CCB.
- Repositories are uni-directionally mirrored (mirror is read-only but can accept merge/pull requests)

1. Open Release projects:

- ASAM-hosted platform in Frankfurt, DE (<u>code.asam.net</u>)
- Project members work via branches and merge requests
- Release branch is public
- All other branches are visible to project members only

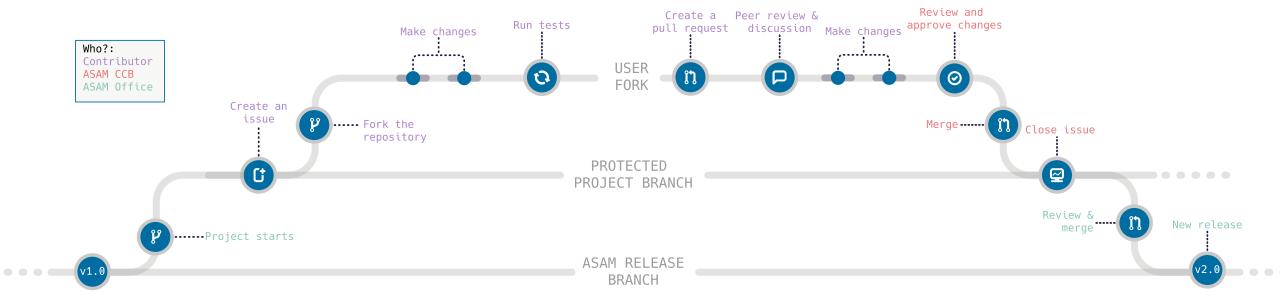
2. Open Source

- Public platform github.com/
- Leverage existing open-source community more accessibility and visibility to individual contributors
- No branching by contributors
- Development work is done via private forking and pull requests
- All branches on repository are public



Development Methodology

Best Practice Guidelines





Quality & License Guidelines

- Automated tests
 - Code independent documentation → Automated builds of content must succeed
 - Code & code dependent documentation
 - Project specific details in project proposal and subject to TSC approval
- · Continuous review by project team and if open source, the public
- It is expected that contributors ensure, to the best of their knowledge, that their contributions are correctly licensed
 - In the case that this cannot be guaranteed, it is expected that the contributor flags the contribution for detailed review by CCB & ASAM office
- License and compliance checks (<u>e.g. Fossology</u>, ...) on pull/merge requests to ASAM repositories
- Inclusion of third-party dependencies or libraries subject to approval by ASAM office



Legal Framework

- ASAM Member Contributor Agreement (MCA)
 - Optional
 - This will allow companies to designate a list of contributors authorized to contribute on their behalf
- For each contribution:
 - Must be signed off with the contributor's real name and email address (indicates acceptance of the DCO).
 - For individuals submitting on behalf of an organization (i.e. their employer), this also indicates acceptance of: "I am authorized to submit this contribution on behalf of the organization holding the copyright"
 - Contributors submitting for an organisation that has an ASAM Member Contributor Agreement (MCA)
 - Commits must include the following in the commit message: "Provided under the terms of the ASAM Member Contributor Agreement (MCA)"
 - All contributions are licensed under the same license as the project license



Project Licensing

- Project specific (e.g. ASAM OSI → MPL 2.0)
- Recognised open-source licenses only (see here)
 - For the future, we might have an ASAM-approved list of open-source licenses



ASAM Open Tooling Proposal

- Many tools (e.g. checkers, visualizers, etc.) directly support the adoption and training of ASAM standards
- In future, ASAM will provide a platform for hosting non-normative, open-source tools complimentary to ASAM standards
 - Tool submission to the platform via "tool proposal" subject to approval of CG:Sim
 - This should include a tool roadmap (to be presented to CG:Sim)
 - Any tools can be used as the basis for further development projects, as defined in the general ASAM project processes.
 - ASAM will not become a software maintainer, nor will it guarantee for the tooling quality



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Project Stages

- 1. Proposal
- 2. Initiation
- 3. Development
- 4. Release

Project Roles

Development Team

(mandatory, staffed by members and paid service provider, roles are non-exclusive)

Contributors

- Develop software, i.e. write source code and tests.
- Must have agreed to ASAM Contributors Agreement

Committers / ASAM Change Control Board (CCB)

- Review contributions
- Merge source code and tests into the main branches.
- Named in the project proposal and extendable by majority vote of existing committers
- Must have agreed to ASAM Committers Agreement

Project Leader

- Elected by and originating from the group of project members.
- Project management, meeting organization and alignment with ASAM office
- Named in Project Proposal

Service Provider

- · Develop and carry out tests.
- Technical documentation
- Optional and requested in the project proposal.
- Managed and monitored by the project leader & ASAM office.



Project Roles

Administrative Team

(mandatory, staffed by the ASAM office)

Legal Reviewer

- Reviews and provides clearance for the use of publicly licensed, thirdparty or initial-contribution source-code.
- Reviews legal documentation in source code and legal documents distributed with source code.
- Resolves legal issues.
- May use a lawyer specialized in IT-law as an external resource.

IT Administrator

- Setup, configures and maintains tools for use in projects.
- Those are server-based tools.
- Responsibility does not include tools installed on project member's personal computers.

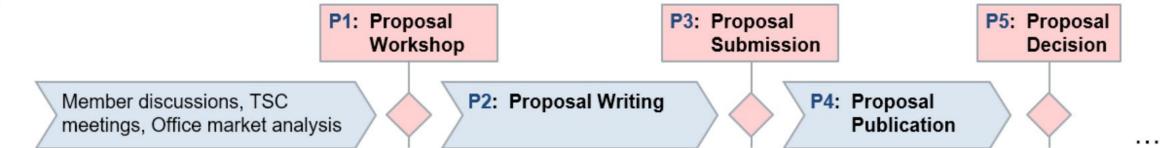
Business Assistant

- Carries out public calls for offer, commissioning and payment of service providers.
- Other commercial and administrative tasks.



Proposal







Initiation

- The process starts from scratch (no software) or with an initial software contribution from project members.
- A software repository is setup by the IT administrator. Initial software contributions are pulled into the master branch
 of the repository.
- A legal review ensures that the initial software contributions can be used and further distributed in accordance with the project's license terms
- Initial development ensures that the software can be tested, can be built and is deployable. The term 'build' in the
 context of ASAM includes software and documentation.



Release

- Release review:
 - Public review
 - As defined in the ASAM project handbook
 - Final review of all deliverables (editorial & technical)
- Voting
 - Technical release: Project members
 - Public release: 1) CG:Sim 2) TSC

