

Contribution Checklist

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Post-acceptance 18

This document covers the steps that should be taken at the various stages of 19 making a contribution to Apertis with the rationale more fully explained in the 20 policy¹. It covers both those steps to be taken by the contributor as well as the 21 maintainer(s)² accepting the contribution on behalf of Apertis. It is presented 22 in this manner to provide transparency of the steps that are taken and the 23 considerations that are made when accepting a contribution into Apertis, be 24 that a modification of an existing component, addition of a new component or 25 concept design. 26

The steps required to be taken by a contributor will be marked with contributor, 27 those to be taken by a maintainer on behalf of the Apertis project will be labeled 28 Maintainer. 29

Apertis is utilized by multiple parties, all of whom have a stake in Apertis 30 continuing to meet their own set of requirements. Whilst a proposed change 31 may provide the optimal solution for your use case, the Apertis maintainers will 32 need to consider the impact the change will have on the other users of Apertis too 33 and thus may request changes to the solution to ensure that Apertis continues 34 to well serve all its users. 35

Depending on the scope and content of the requested change, options may be 36

¹https://jwd.pages.apertis.org/apertis-website/policies/contributions/

²https://jwd.pages.apertis.org/apertis-website/policies/contributions/#the-role-ofmaintainers

³⁷ available to provide a dedicated project area³ to host party/project specific

³⁸ packages to enable such changes to be made to a project specific version therefore

³⁹ avoiding and impact on the core Apertis offering.

⁴⁰ This checklist is broken down into the following stages, with some items broken
⁴¹ out per contribution type:

- Pre-development: These are topics that should be addressed prior to any significant work being carried out to avoid pitfalls that may cause a contribution to be rejected.
- Development: Certain factors and considerations should be made dur ing the development of proposed changes to ensure they conform to the
 projects polices.
- Pre-submission: Final checks that should be made prior to a submission being made.
- Review: Points that should be covered during the review of the contribution.
- Post-submission: These are on-going responsibilities after a change has been accepted.

54 Pre-development

55 General

Contributor Understand licensing requirements: Ensure that the contribution will be able to be licensed in a manner acceptable to the Apertis project⁴.

Contributor Determine if ongoing support is to be provided: Apertis is supported with resources and effort by it's core backers. It is the requirements of those who support the project who ultimately control its direction. Whilst simple non-intrusive changes are very welcome, the ability to offer firm commitments to support the project may impact the viability of a proposed substantial change that provides no benefit to the existing maintainers.

Contributor Identify the value that the proposed changes bring to
 Apertis: During review, the Apertis maintainers will consider the value
 brought to Apertis⁵ by any proposed changes. Ensure that such value can
 be expected before starting development.

Contributor Ensure proposed changes comply with all existing rel evant policies: The Apertis maintainers will be evaluating whether the
 proposed changes comply with the full range of policies which govern the

 $^{{}^{3} \}rm https://jwd.pages.apertis.org/apertis-website/policies/contributions/\#dedicated-project-areas$

⁴https://jwd.pages.apertis.org/apertis-website/policies/license-applying/

 $^{{}^{5}}https://jwd.pages.apertis.org/apertis-website/policies/contributions/\#extending-apertis-website/policies/contributions/apertis-website/policies/contributions/apertis-website/policies/contr$

Apertis project. Now is a good time, before significant effort is expended, 73

to check that the proposed changes align with the Apertis projects policies

to guide development and avoid disappointment or wasted effort. 75

Concept Design 76

Contributor Survey the state of art: The project strives to adapt and expand to new use cases utilizing the approach that provides the best 78 fit for Apertis. Any proposed change to the project should show that 79 alternative have been researched and evaluated. 80

Development 81

General 82

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- Contributor Explain what the contribution brings to Apertis: 83
 - Code: What does the change do?
 - Component: What is the component, what does it do?
 - Concept Design: What is the goal, how is it expected to work?

Contributor Any impacted documentation is updated: This may be 87 able to form part of the same merge request or may need to be part of a 88 separate merge request depending on the repository to which changes are 89 being made. Either way, such changes should be available for review at 90 the same time. 91

Code 92

Contributor Coding conventions: Ensure that any code conforms with 93 the Apertis coding conventions⁶ 94

Contributor Changes don't break any supported architecture: Aper-95 tis provides support for a number of reference platforms⁷, the changes 96 must work or not be applicable on all applicable architectures and plat-97 forms. 98

Component 99

Contributor Components should follow the packaging workflow: 100 Repositories for newly added components should be structured accord-101 ing to the component structure⁸ guide, including providing Apertis' CI 102 pipelines. The pipeline should succeed for all supported architectures. 103

 $^{^{6} \}rm https://jwd.pages.apertis.org/apertis-website/policies/coding_conventions/$ ⁷https://jwd.pages.apertis.org/apertis-website/reference_hardware/ ⁸https://jwd.pages.apertis.org/apertis-website/guides/component_structure/

Where a components applicability is limited to specific platforms or architectures, this should be well documented and the components repository configured to reflect this.

107 Concept Design

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08	٠	Contributor **Follow document template **: The document should utilize
09		the document template ⁹ as a framework when writing the concept design.

• Contributor **Document expected approach to meeting goals**: An outline should be giving a high level overview of the steps that would need to be taken to take Apertis from its current state to the end goal of the concept design.

The breadth of topics that may need to be covered here will be highly dependent on the goal of the concept document. The document should be detailed enough to clearly describe the design and surrounding problems to developers and project managers, but it is not necessary to describe implementation details.

- ¹¹⁹ Topics that may need to be addressed include changes or impact on:
- 120 The development workflow
 - CI/CD and testing approach
- 122 Infrastructure configuration
- Existing components
- Support of releases over their lifetimes
- Long-term maintainability of the project
 - Impact on security and effect on security boundaries
- Backwards compatibility with existing feature set

Such topics may require a high degree of familiarity with the project to answer. The Apertis maintainers are open to discussing goals and approaches
prior to a concept design being submitted. Discussing and collaborating
with the maintainers at an early stage is likely to prove beneficial to the
contributor, increasing the likelihood that the submitted design concept
will ultimately be accepted.

Contributor Website integration: Design concepts and other equivalent documentation changes are submitted as a change to the documentation on the Apertis website and should also be generated by the website CI/CD as a PDF to aid with review. Documents should be formatted in Mark-down and follow the relevant guidance¹⁰.

⁹https://jwd.pages.apertis.org/apertis-website/policies/contributions/#concept-design-document-template

 $^{^{10} \}rm https://gitlab.apertis.org/docs/apertis-website/-/blob/master/README.md$

¹³⁹ Pre-submission

140 General

- Contributor The proposed changes should be broken down into 1
 or more atomic commits¹¹: The addition of a new concept design may
 be presented as a single commit, however is likely that many code changes
 should be broken down into multiple well described logical commits.
 - Contributor **Document impact of changes on Apertis**: What is the expected outcome in Apertis? What is it adding? What needs to change? Is anything being removed? Is it expected to cause any regressions?

$_{148}$ Code

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149	• Contributor Evaluate whether Apertis is the correct place for the
150	contribution: Is Apertis the most suitable place to submit the proposed
151	changes in line with Apertis' upstreaming policy ¹² ?
152	In some circumstances important fixes may be acceptable for inclusion in
153	Apertis in parallel with efforts being made to upstream elsewhere, so as
154	to reduce the time taken for the changes to reach Apertis' users.

155 Review

156 General

- Contributor Address review comments promptly and fully: It is likely that most submissions will result in feedback, be that requests or questions. It is expected that a resolution should reached for any feedback prior to a submission being accepted.
- Maintainer License suitability: Does the contribution meet the license expectations¹³ and guidelines¹⁴?
- Maintainer Evaluate the benefits of accepting the contribution:

164	– Does the benefit of accepting the contribution outweigh the cost of
165	maintaining the changes long-term?
166	- Does the change fit the long-term goals of the Apertis project?

Does the change well with the goals and objectives of the Apertis
 project?

 $^{^{11} \}rm https://jwd.pages.apertis.org/apertis-website/guides/version_control/#guidelines-formaking-commits$

 $^{{\}rm ^{12}https://jwd.pages.apertis.org/apertis-website/policies/contributions/\#extending-existing-components}$

 $^{^{13} \}rm https://jwd.pages.apertis.org/apertis-website/policies/license-expectations/$

¹⁴https://jwd.pages.apertis.org/apertis-website/policies/license-applying/

• Maintainer **The goal of the change adequately explained.** For small code changes a well written commit message will suffice. Larger changes should be accompanied by a merge review description covering the entire merge request. For concept documents, the goal should be adequately explained in the document its self.

• Maintainer Evaluate the impact on Apertis:

- What is the expected outcome in Apertis?
- What is it adding?
- What needs to change?
- Is anything being removed?
- Is it expected to cause any regressions?
- Maintainer Are changes broken down into atomic commits: Good
 practice should be followed with regards to commit history¹⁵.
- Maintainer Changes pass on all applicable CI/CD pipelines: The
 changes do not cause build regressions on any supported architecture.
- Maintainer Evaluate impact across all supported platforms: Changes should either be applicable to all supported platforms or care should be taken to evaluate that platform specific changes are made in a way that other platforms are not negatively impacted.
- Maintainer Ensure adherence to Apertis policies: Changes to Apertis
 should only be accepted if they adhere to all the relevant Apertis policies.

$_{190}$ Code

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- Maintainer Check coding conventions: The contribution should con form to the coding conventions¹⁶.
- Maintainer Evaluate whether Apertis is the correct place for contribution: Is Apertis the most suitable place to submit the proposed changes in line with Apertis' upstreaming policy¹⁷?

196 Component

Maintainer Ensure that the component doesn't duplicate exist ing core functionality: Where possible adding multiple components
 that implement the same functionality should be avoided as this increases
 maintenance for little appreciable gain. An exception to this policy exists
 for developer tools, especially editors.

 $^{^{15} \}rm https://jwd.pages.apertis.org/apertis-website/guides/version_control/#guidelines-formaking-commits$

¹⁶https://jwd.pages.apertis.org/apertis-website/policies/coding_conventions/

 $^{^{17} \}rm https://jwd.pages.apertis.org/apertis-website/policies/contributions/\#extending-existing-components$

• Maintainer Component implements the required workflow: The package repository is structured as described in the component structure guide¹⁸, is correctly configured and all applicable CI pipelines succeed.

²⁰⁵ Concept Design

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- Maintainer Concept broadly follows concept design template: New concept designs should follow the design template where possible. Extra sections may be included and sections removed where appropriate and where as strong argument exists to do so.
- Maintainer Ensure an evaluation of the state-of-the-art been performed:
- Has a comprehensive review of alternative solutions been performed?
 Does the proposed solution seem the best fit for Apertis? (This should take the rationale for inclusion into account.)
 Maintainer Is the approach to meeting the goals is sufficiently
- Maintainer is the approach to meeting the goals is sufficiently
 clear: Have the impact of the proposed changes been fully considered.
 Is it understood how it will work.

²¹⁸ Post-acceptance

- Contributor Continue to support the changes that have been made:
 Where commitments have been made regarding support of changes to the
 project, these should be honored.
- Maintainer Maintain changes as long as possible: Changes added to Apertis should be maintained where possible for as long as they are meaningful to the project.
- ²²⁵ If submitting a large patch set, consider whether it can be broken down into ²²⁶ several stages, ensuring that any feedback from reviews of earlier stages are ²²⁷ applied to subsequent ones.
- As a rule of thumb start with a lean design/change and submit it for review as early as possible.
- You can send a new design for review to the same channels used for a component
 contribution¹⁹.

 $^{^{18} \}rm https://jwd.pages.apertis.org/apertis-website/guides/component_structure/$

¹⁹https://jwd.pages.apertis.org/apertis-website/guides/development_process/