

LSST Dark Energy Science Collaboration  
Policy on Software Development

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# DESC Policy on Software Development

## Introduction

This document describes DESC policies related to software development. It is expected to grow with time as policies are adopted.

## On Sharing Unreleased DESC Code

The DESC Publication Policy defines DESC code as code “developed within the DESC or using DESC resources” and envisions the release of DESC code to be accompanied by an associated journal paper or internally reviewed Note that should be cited in all publications that make use of the tools. (The decision between note and journal paper depends on the particular circumstances and normally is made by the lead developers in consultation with the relevant WG conveners or task for leads.) Released DESC code also “should follow [TBD] DESC policies on software and/or reproducible research.” In the circumstance that an opportunity arises to apply an unreleased DESC code to proprietary data external to DESC, or to further the development of an unreleased DESC code with individuals or collaborations outside of DESC, and the lead developers within DESC would like to pursue the opportunity, the following steps are recommended. Important note: These guidelines apply only in the cases that any resulting publications will not be DESC papers. Joint work on DESC Projects leading to DESC publications is covered by the External Collaborator policy.

1. The developers explain to the conveners of the relevant WG, and to the relevant Coordinator if a convener is conflicted, what they want to do and why it is in DESC’s interest.
2. With their conveners’ concurrence, the developers write a brief proposal. This should describe i) which DESC Project(s) it relates to, ii) what would be shared outside the DESC, iii) with whom or with which collaboration, iv) to what end, v) the anticipated ending date (or date at which the sharing arrangement would need to be renewed by DESC), vi) what development model would be used (e.g. open or private repositories), and vii) any anticipated papers, including why they would not be DESC papers.
3. The proposal should be shared with the relevant WG and the Pub Board, with a one-week period for comments.
4. If after the comment period the WG conveners (or Coordinator if a convener is conflicted) still concur, then the proposed sharing is approved. The proposal and WG concurrence should be posted in Confluence for the record [location TBD].

If non-DESC papers result from a code sharing arrangement described above, questions of authorship are to be decided between the DESC members who contributed to the code and the parties with whom the code has been shared. However, DESC will require that the publications include an acknowledgement statement for DESC [wording TBD].