

OpenCDSS Memorandum

To: Brian Macpherson (Colorado Water Conservation Board)
From: Steve Malers (Open Water Foundation)
Subject: Notes on using GitHub project
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Introduction

This memorandum includes notes from setting up a GitHub projects for OpenCDSS and StateMod. This is envisioned as a way of coordinating major work products collecting multiple repositories associated with each product.

Creating a Project

GitHub projects are fundamentally a way to manage backlog of work tasks, in particular active tasks. Read about Projects here: <https://help.github.com/articles/about-project-boards/>.

Initially made the mistake of starting a project on a repository. This is OK but am more interested in creating a project that involves multiple repositories. Therefore, start on the main <https://github.com/OpenCDSS> page.

Click on the **Projects** tab. The following information is provided to set up the project. Select **Basic Kanban** for the template. Kanban is basically a “to do” list approach.

 OpenCDSS Repositories 3 People 4 Teams 0 Projects 0 Settings

Create a new project

Coordinate, track, and update your work in one place, so projects stay transparent and on schedule.

Project board name

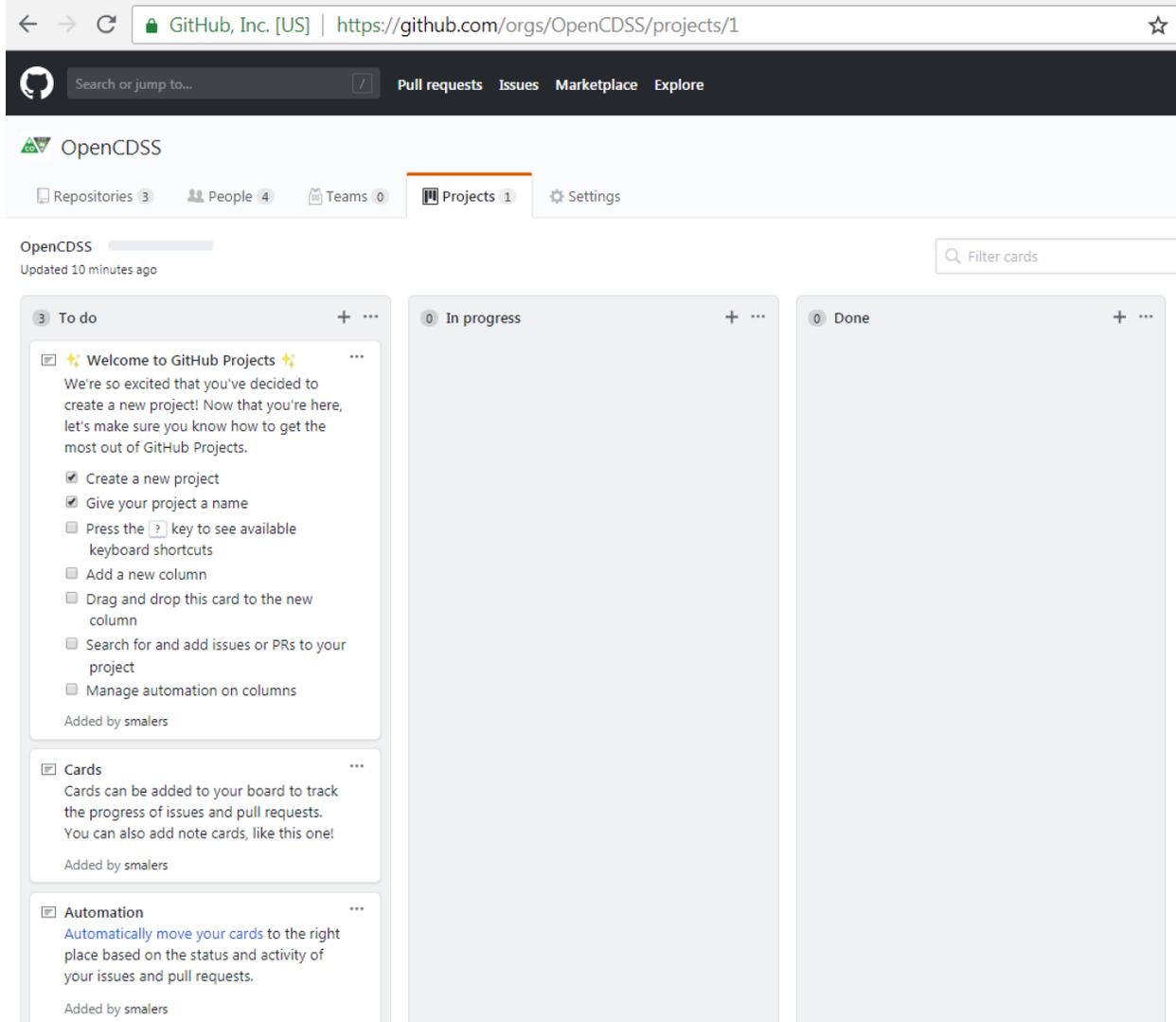
Description (optional)

The [OpenCDSS](#) project collects information for the overall [OpenCDSS](#) project, such as the website, major milestone [roadmap](#), and connections to other projects that are funding enhancements to [CDSS](#) software. This project may also be used to coordinate user group activities.

Project template

Save yourself time with a pre-configured project board template.

After pressing **Create Project** the following is shown.



How to associate specific repositories with the project?

It does not appear that repositories can be specifically associated with a project board by default. Instead, it appears that the search feature can be used to search for issues on repositories (see the next section). And, it may be possible to turn on automation features to help, see: <https://help.github.com/articles/configuring-automation-for-project-boards/>, although this seems to focus more on changing the state of issue in the Kanban board based on issue status change, rather than initial relationship of repository and board.

How to associate repository issues with a project?

The following describes how to move issues into a project: <https://help.github.com/articles/adding-issues-and-pull-requests-to-a-project-board/>.

The above mentions the “triage” area, which is the area to the right of the **Done** column (far right). Searches can be used to find issues. See: <https://help.github.com/articles/searching-issues-and-pull-requests/#search-within-a-users-or-organizations-repositories>.

Therefore, there is a way to list issues in repositories and then they can be dragged into the appropriate column. Using the “...” button in a column allows connecting the issue status to the automatic action on the board. For example, if the issue is closed, then it is automatically moved to the **Done** column.

How to handle priority of issues on the board?

There does not appear to be a priority associated with the Kanban board. Therefore, it appears that the best way to assign priorities is to add labels to the issue tracker, for example trivial, minor, major, critical, and blocker. The issue query tool can be used to list all critical and blocker issues and a decision can be made as to whether to move those onto the board for overall tracking. People that are involved with the project and have write permissions can set the priority.

Moving Forward

Based on a quick review of features, it appears that for StateMod, there are two options:

- 1) Create an organization-wide “StateMod” project. It appears that it is possible to do this and reference other repositories, such as private repositories hosted in the OWF GitHub account, but this may be cumbersome. Instead, see option 2.
- 2) Create a repository-specific project on the “cdss-app-statemod-fortran” repository (and similarly the main code repository for each product). This will require that people know which repository to use to find the project, but that can be explained in the OpenCDSS website documentation. This approach can be tested on the OWF “cdss-app-statemod-fortran” repository. It is not clear if transferring a repository from one account to another will also transfer the associated project, but this can be tested. If the bulk of the issue information is saved with the issue, then the project can probably be quickly recreated on the OpenCDSS repository once transferred.

Option 1 can be tried for the overall OpenCDSS effort and option 2 can be tried for the StateMod software enhancements. Once some experience is gained with the OpenCDSS team, adjustments can be made to find a workable approach.