

Solar type III tracker

User Guide

- I) Logging in and accessing the project
- II) Modifying the project
 - a. Project tabs
 - b. Modification guide
 - c. Project testing
- III) Retrieve output

I) Logging in and accessing the project

To start, you will need to log in (or alternatively create an account) on Zooniverse. You can find the buttons to do so on the upper right corner of the website's homepage (<https://www.zooniverse.org/>).



Once logged in, you will arrive on this portal. To access your projects, click on the button “Build A Project” on the banner at the top of the screen. You will then see the list of projects you have created, as well as the projects you have saved as a “collaborator”.

II) Modifying the project

a. Project tabs

By clicking on a project, you will be able to access its modification page. You will then see the following tab list on the left side of the page:

[View project](#)

Project details

[About](#)

[Collaborators](#)

[Field guide](#)

[Tutorial](#)

[Media](#)

[Visibility](#)

[Talk](#)

[Data Exports](#)

[Workflows](#)

[Subject Sets](#)

NEED SOME HELP?

[Read a tutorial](#)

[Ask for help on talk](#)

[Glossary](#)

OTHER ACTIONS

[Delete this project](#)

Here are the most important tabs, as well as their content:

- **Project details:** The project's name, a one line description of it, as well as various information on it.

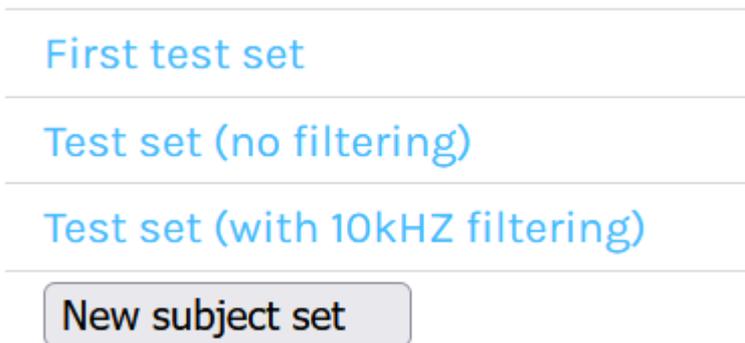
- About : A longer description of the project, used to explain in detail what the project's goal is.
- Collaborators: The list of collaborators, i.e., Users able to modify the project, moderate discussions, interact with the data sets, etc.
- Field Guide: A user guide explaining exactly what to identify and how, for example here by explaining what is or isn't a type III, and how to recognize them.
- Tutorial: A description of the project's user interface, and what said users will have to do to validate a classification.
- Visibility: Establishes if the project is private (only visible to its collaborators) or public, and if it is finalized or still in development.
- Talk: Allows you to create a "discussion board" where users will be able to report problems with the classifications, or underline interesting or strange things noticed on the data.
- Data Exports: Allows you to export classifications.
- Workflows: Allows you to modify the way users classify the data. It is probably the tab you will spend the most time in, as it is the one that defines the most important part of your project: the steps the users have to take to classify your data.
- Subject Sets: Where you import the data sets used in the project.

b. Modification guide

The project's most important tabs are, in the logical order in which you will use them, Subject Sets, Workflows, and Data Exports.

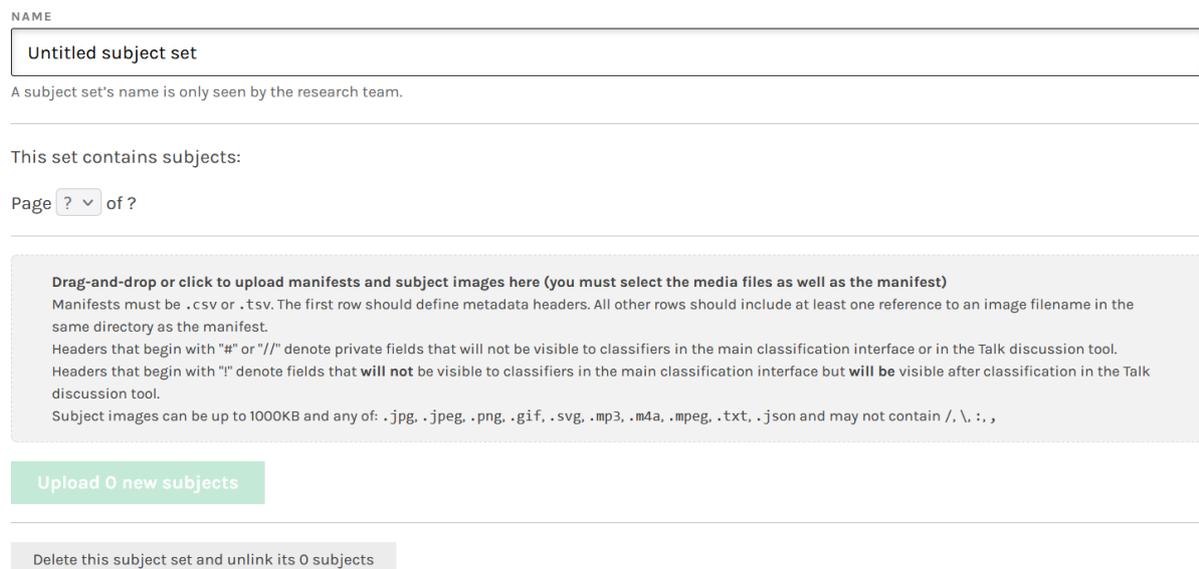
In Subject Sets, we can create multiple different datasets that we'll be able to modify at any point, as long as the project is still "In Development". Once finished, even if we can't modify existing

datasets, we can still import new ones and change the sets used in the project itself.



Here are three example data sets, with the “New Subject Set” button.

When clicking on said button, we reach this page:



We can name this new set, and add as many images or sound file as we need. Zooniverse has a base limit of 10 000 subjects to be uploaded, but this limit can be changed by contacting their Zooniverse Support, should we need more space.

Once the data set in place, we can turn our attention to Workflows. They are the series of actions each user will have to go through to do a classification. Multiple of them can be created, and they can be modified as the need arise.

Name	Progress	Status	Completeness statistic	Statistic visibility
test workflow (#24164)	0 % Complete	<input checked="" type="checkbox"/> Active	<input type="radio"/> Classification Count <input checked="" type="radio"/> Retirement Count	<input checked="" type="checkbox"/> Show on Stats Page

⏪ First
← Previous
Page 1 of 1
Next →
Last ⏩

[New workflow](#)

Here we have, for example, an active workflow, as well as the button to create another.

Creating a new workflow requires us to provide a name, and then brings us to the following page (which is also the page to edit any existing workflow).

test workflow #24164 

A workflow is the sequence of tasks that you're asking volunteers to perform. For example, you might want to ask volunteers to answer questions about your images, or to mark features in your images, or both.

WORKFLOW TITLE

If you let your volunteers choose which workflow to attempt, this text will appear as an option on the project front page.

TASKS

 Select a type III radio burst.	T0
<input checked="" type="radio"/> Is there a type 3 radio burst ? <i>(first)</i>	T1
<input type="radio"/> Is there another type 3 to record ?	T2

[+ Add a task](#)

FIRST TASK

A task is a unit of work you are asking volunteers to do. You can ask them to answer a question or mark an image. Add a task by clicking the question or marking buttons below.

MAIN TEXT

Is there a type 3 radio burst ?

Describe the task, or ask the question, in a way that is clear to a non-expert. You can use markdown to format this text.

HELP TEXT




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Here, we can modify any and all attributes of the workflow. Below its title are the tasks: each workflow is a series of tasks, each task being either a multiple choice question, an interaction with an image, or a text to write.

Once we create a task of one of these three types, we can modify it (as seen in the right side of the screen). Here, the selected task is a question, so its only properties are its text, an eventual help text, and the possible answers. Each answer can then redirect to any other task of our choosing, or validate classification for this specific file and

move on to another.

The image shows two vertically stacked panels, each with a close button (X) in the top right corner. The top panel contains the text 'Yes' and a 'Next task' dropdown menu with the selected option 'Select a type III radio burst.'. The bottom panel contains the text 'No' and a 'Next task' dropdown menu with the selected option '(Submit classification and load next subject)'. Both panels have a small diagonal hatched icon in the bottom right corner of their main content area.

For example, here, if we answer “Yes” to the question “Is there a type III burst”, we access the next task (the actual selection of the burst); otherwise we just move on to another spectrum.

For “interaction” type tasks, we need to define its title, as well as the type of selection tool used. Here, we can see the list of the various types of selection we can provide the user.

Tool name

Type point

Color Red

Min 0 Max ∞

Size Small

Sub-tasks (0)

Ask users a question about what they've just drawn.

+

Select which marks you want for this task, and what to call each of them. The tool name will be displayed on the classification page next to each marking option. Use the simplest tool that will give you the results you need for your research.

bezier: an arbitrary shape made of point-to-point curves. The midpoint of each segment drawn can be dragged to adjust the curvature.

circle: a point and a radius.

column: a box with full height but variable width; this tool *cannot* be rotated.

ellipse: an oval of any size and axis ratio; this tool *can* be rotated.

line: a straight line at any angle.

point: X marks the spot.

polygon: an arbitrary shape made of point-to-point lines.

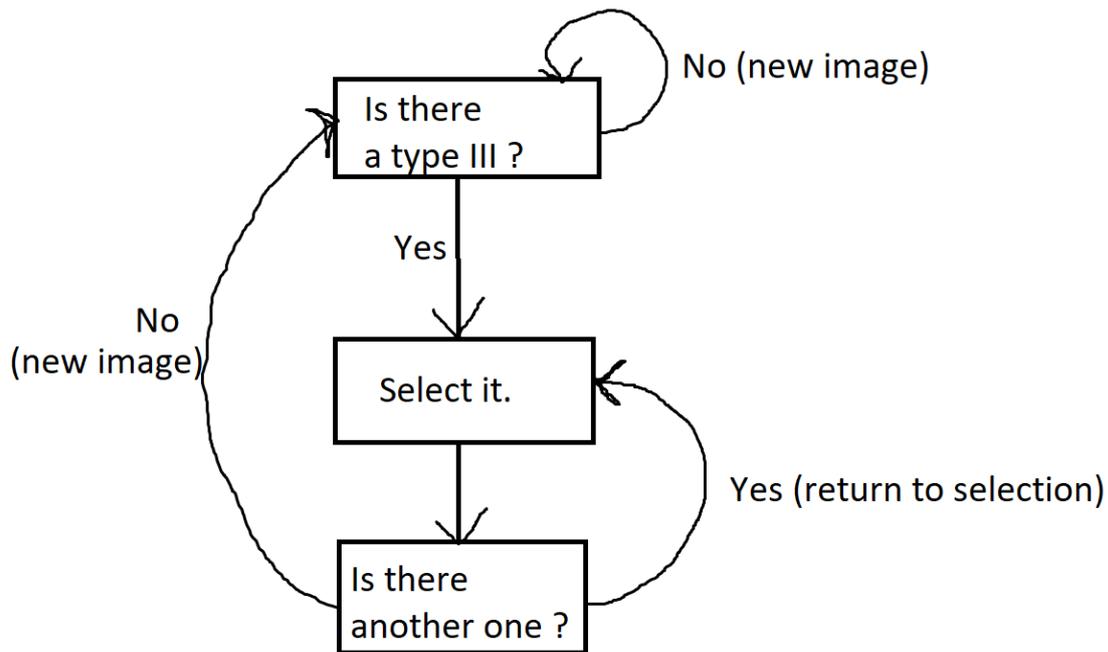
rectangle: a box of any size and length-width ratio; this tool *cannot* be rotated.

triangle: an equilateral triangle of any size and vertex distance from the center; this tool *can* be rotated.

}

Just like with questions, once we finish selecting something on the image, we can then move on to another task, or validate our classification and move on. It all depends on the way the workflow is set up.

As such, we can schematize our current workflow like this:



Lower on the Workflow page, you can set various properties (which data set should be used, which data set should be the default, if this workflow should appear on the Zooniverse app, etc etc). You can also choose the number of times an image needs to be classified by a user before it is considered fully analyzed.

As for our last important tab, Data Exports, we will describe it in more detail in the last part of this guide.

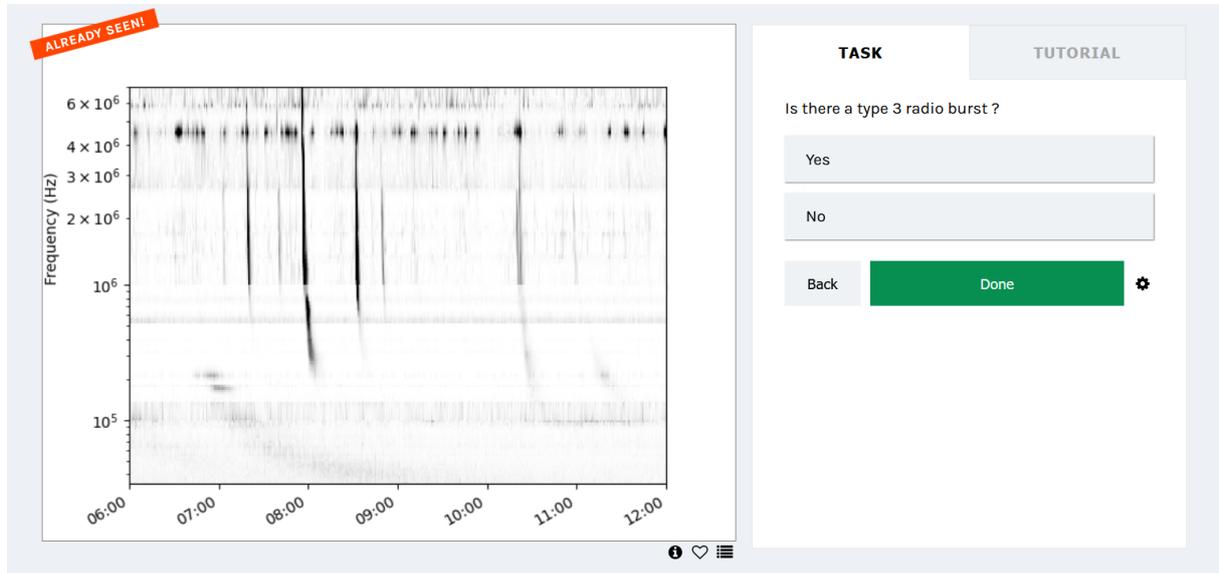
After defining the project’s general architecture and imported the necessary data, we now only need to add a few last details, to make it more attractive and clear to Zooniverse’s users. To this end, we will add a project description in the About tab (which is only a large text input box), as well as a Field Guide, which, as described prior, will help users understand a bit better what a type III is and isn’t.

c. Project testing

If you want, at any point, to test your project, the easiest way to do so is through the Workflow tab. At the bottom of the page, you will

find a blue “Test this workflow” button. Clicking it will bring you to the project as if you were a regular user trying to classify data.

With our current workflow, this is what the project looks like.



Any classification done during the testing phase of the project will be saved and can be exported, as long as the project stays in its testing phase. As soon as the project becomes public, this data will be deleted to make room for the “actual” data.

III) Retrieve output data

We can now talk about the Data Exports tab. Clicking on it brings us to this page:

PROJECT DATA EXPORTS

Please note some exports may take a long time to process. We will email you when they are ready. You can only request one of each export within a 24-hour time period.

For examples of how to work with the data exports, see our [Data Digging code repository](#) or use our [Panoptes Aggregation python package](#).

Project Data

[Request new classification export](#) CSV format. Most recent data available requested 6 days ago, [download your data export](#).

[Request new workflow classification export](#) CSV format.

[Request new subject export](#) CSV format. Most recent data available requested 8 months ago, [download your data export](#).

[Request new workflow export](#) CSV format. Most recent data available requested 5 days ago, [download your data export](#).

Workflow contents export: Never previously requested. This export can no longer be generated. We've generated one just prior to disabling the generation. The workflow contents exports have been merged into the normal workflow export. The "strings" column is now available directly in the workflows export, and the "version" column from the workflow contents export is called "minor_version" in the workflows export. This means you no longer need to look up rows from two files in order to know what the actual setup of the workflow was for the version number specified by a classification.

Talk Data

[Request new Talk comments export](#) JSON format. No recent requests

[Request new Talk tags export](#) JSON format. No recent requests

Clicking on any of these links will send a request to the Zooniverse database, to send you a .CSV file of the requested data. If said data is fairly big, the .CSV creation and sending process can take a few moments, and as such Zooniverse will send you an e-mail when it is ready.

Once the file is ready, you can download it by clicking on the "download your data export" link to the right (except for the "Workflow classification export" CSV, which is downloaded by first clicking the request button, and selecting the correct workflow).

The content of each file is as follows:

- Classification Export: Data about the users who went through the classification process. Their ID, username, web browser, the workflow they worked on, etc.
- Subject export: What part of the uploaded data was classified. The workflow used, the name of each file, various metadata associated with Zooniverse, etc.
- Workflow Export: Data about the workflow itself. Which tasks was filled, what answers were provided, when the answer was given, etc.

- Workflow Classification Export: A mix of both Workflow and Classification data. Links the both of them together, showing you which user is associated with which classification, and what their answers were.

To use the data outputted by Zooniverse, you will need both the workflow export, as well as the workflow classification export. The other two can be used to add other metadata to your analysis, but aren't mandatory.

Zooniverse strongly recommends the use of the *Panoptes Aggregation* Python package to analyze its output data. It has both a command line use, and a GUI. There is ample documentation on how to use the package [here](#), but we will still quickly go through the process here.

You will first need to generate a configuration.yaml file. To do so, either use the command line tool **panoptes_aggregation config [path to workflow export] [workflow ID] -d [output directory]**, or open the GUI and, in the "config" window, fill in the same information.

The workflow ID can be found on the workflow list page on Zooniverse.

Once the configuration.yaml file has been created, we can then use it to generate our final output file: either run the command **panoptes_aggregation extract [workflow name] [path to workflow classification] [path to config.yaml] -d [output directory]** or open the GUI and fill in this information in the "extract" window.

You will now have a .CSV file of the classification data of every user.