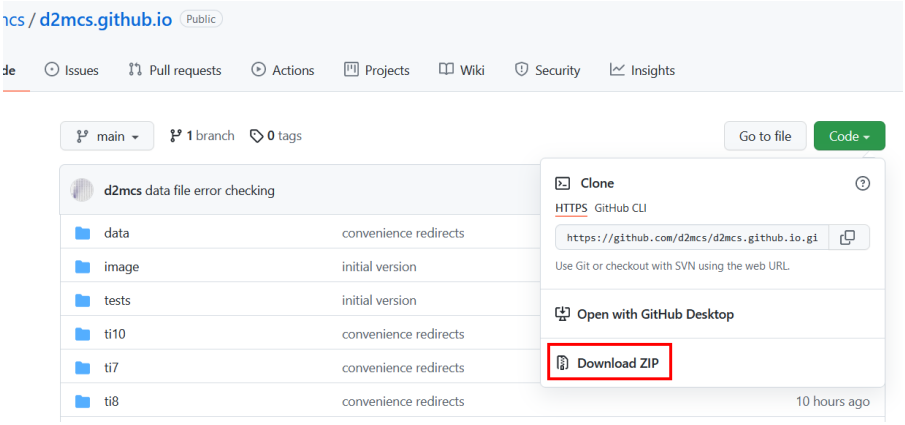
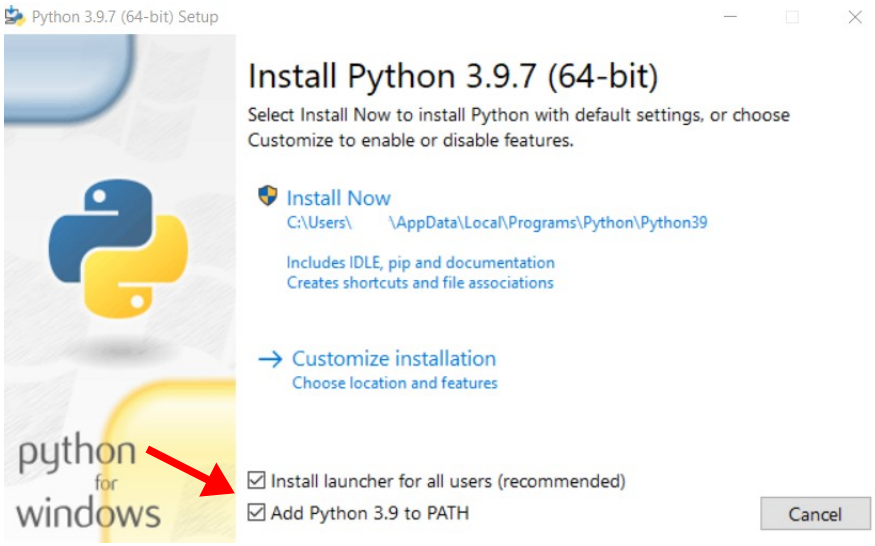
D2MCS Step-by-Step Instructions (Windows)

Setup

First, pull the code from https://github.com/d2mcs/d2mcs.github.io. If you're unfamiliar with git/github you can just select Code → Download ZIP then unzip the downloaded folder.

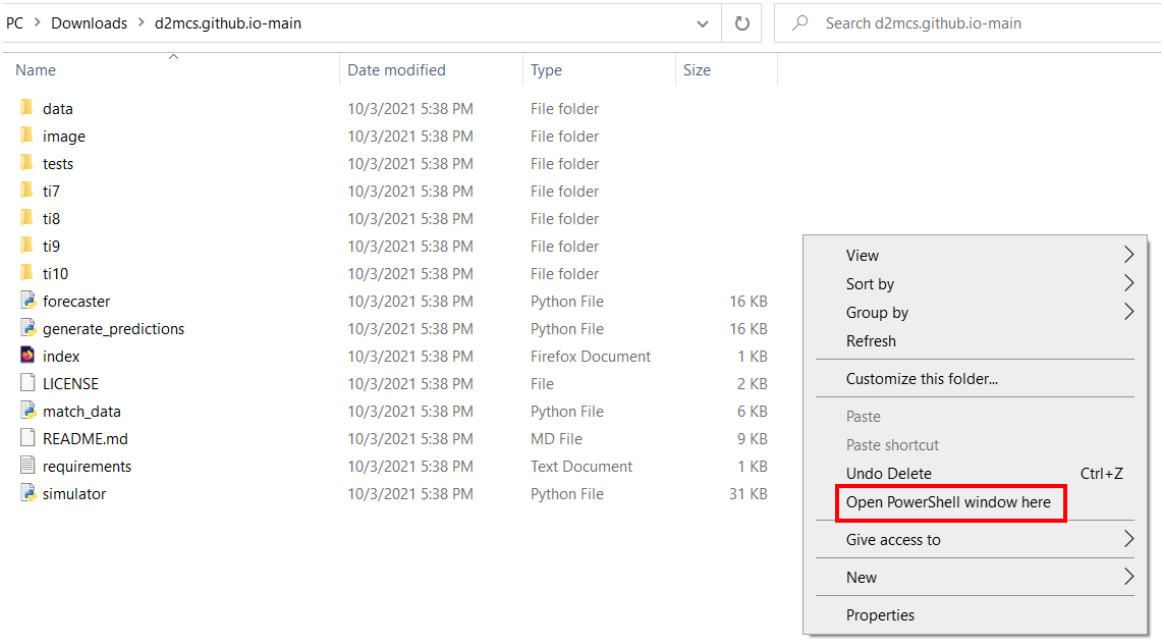


To run the code, you will need Python version 3.6 or greater. You can download python from https://www.python.org/. When installing make sure to select the checkbox for "add Python to PATH."



Otherwise the default installation options are fine (you do not need to disable the PATH length limit).

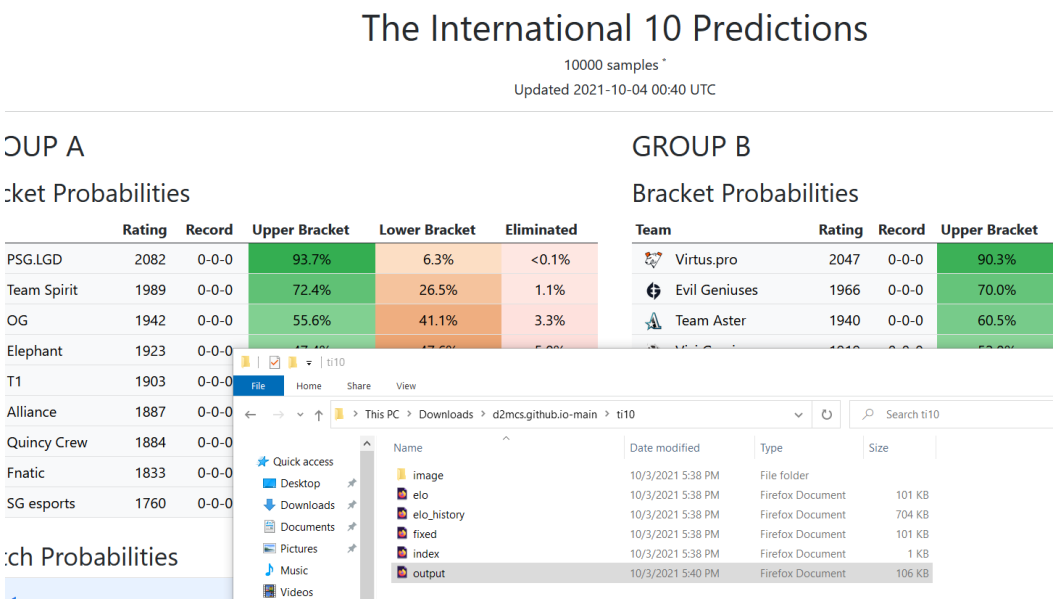
Finally, you'll need to install the required python packages. Open a powershell window in the folder containing the D2MCS source code by shift+right clicking the folder and selecting "Open PowerShell window here." Make sure you're doing this in the folder containing the code – if you don't the commands won't work.



Run the command "`pip install -r requirements.txt`" (without the quotes). You should see pip installing the required packages. Once this is complete you can generate predictions using "`python generate_predictions.py 10000`".

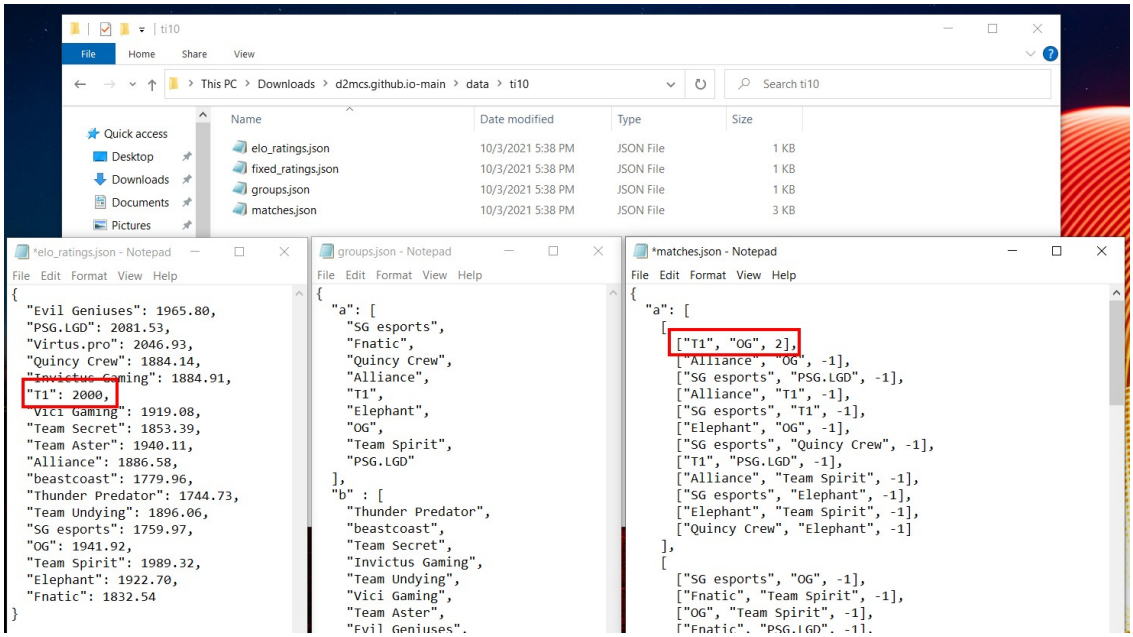
```
PS C:\Users\     \Downloads\d2mcs.github.io-main> python generate_predictions.py 10000
100%|                                                                              | 10000/10000 [00:04<00:00, 2187.77it/s]
Output saved to ti10/output.html
PS C:\Users\     \Downloads\d2mcs.github.io-main>
```

The number at the end controls the number of simulations to run. 10000 is enough to get reasonable estimates, but you'll want to run more if you want accurate probabilities. The output report will be saved to the ti10 folder. To view it open the ti10 folder and double click on "output.html". You should see something like this:

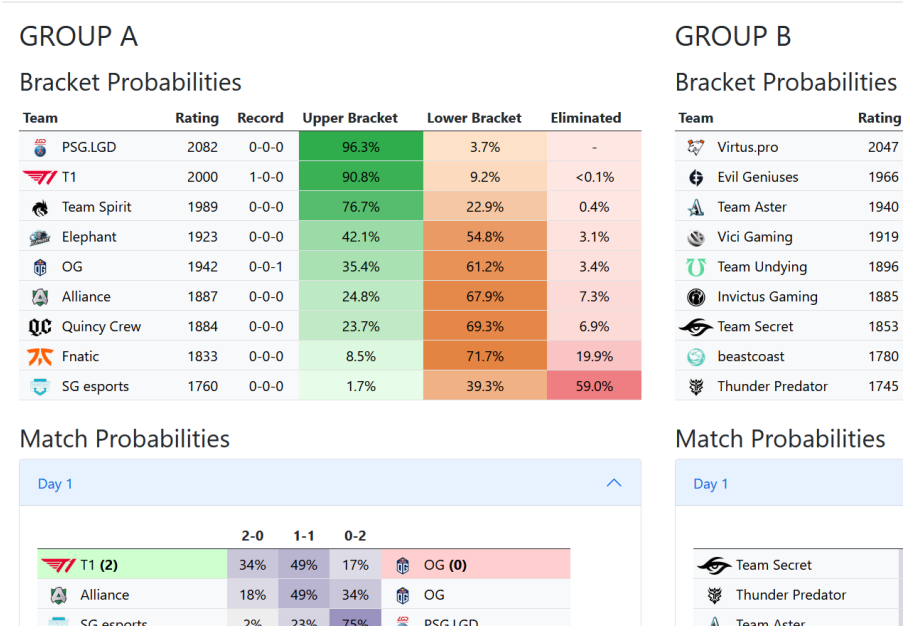


Changing Team Ratings and Match Results

There are three plain-text JSON files that can be edited to alter predictions. All three files are contained in the data/ti10 folder and can be edited using any text editor (e.g., notepad). Team ratings can be controlled with **elo_ratings.json**, groups can be controlled with **groups.json**, and matches can be controlled with **matches.json**. For example, in the following image I manually change T1's rating to 2000 then change the match result between T1 and OG to be a 2-0:



Upon running the code again, the report will look like this:



Match results should either be 2 (2-0), 1 (1-1), 0 (0-2) or -1 (match hasn't been played yet). So, for example, if I wanted the result to be a 2-0 in favor of OG instead I would use a 0 instead of a 2.