

# 1 Installation

Download from repo. You need numpy, opencv, pandas and streamlit ( numpy should come with opencv or pandas depending on order you install).

- pip install opencv-python
- pip install pandas
- pip install streamlit

In terminal go to repo folder and execute " streamlit run mapperhelper.py " . You will get localhost page to open in browser. Rest of documentation is about application in browser. Once you are done exit application with CTRL+C.

## 2 Start

At start all of the interface is disabled. On the left side under "Start Here" you have 3 load buttons. You need to load SOE files provinces.lua , provinces.png and exampletest.csv from the repo. WARNING processing of provinces.png takes some time "it's normal" but after first run it's cached so you should not experience any slowdowns after that. Once all 3 files are loaded upper part of interface is unlocked.

## 3 Basic Interface

### 3.1 left column

In left column we have table filled from csv , contains names of provinces that we want to add.( Can be skipped in new versions )

Rows you can add just by clicking on plus sign in table, delete by selecting check mark on first column and pressing "delete" on keyboard.

In "Province" column you can write any string or leave empty generic name "province+colour" will be used. In "Terrain" column you don't need to write anything available terrains are loaded from lua file and after double click on cell you pick from list. In "colour" column you write colours you use for painting map ( safest way copy from colour picker popup since it checks for blanks and reports error that is hardly visible possible check will be dropped ). Hex version is expected lower or upper case variant does not matter it will be converted internally. Below we have coloured table with verification status of each column in upper table ( Green = OK , Red = ERROR). Above table there are error messages to help you fix it ( can be removed later - for debug at the moment) Once verification table is all green it means that you have entered minimal set of data to update lua file i.e. save button in middle column will be activated as well as detailed entry for provinces.

### 3.2 middle column

Just gives visual representation of picked colours due to limitations of used packages it was intended to be integral in the main table. One needs visual crosscheck what colours you use.

Also it contains button to save changes to lua file. At the moment it will save changes to provinces-new.lua file for debug. Button is initially disabled until minimally needed entries are confirmed and type checked.

### 3.3 right column

Colour picker. As you can see on start default colour (black) is already used in the map and you get warning that it should not be used. Click on picker pick any other. On exit it will inform you is it safe to use. Once you copy free colour in main table visual representation will appear in middle column.

## 4 Additional section

At the start there is option to choose additional input or not. Once it's unlocked you can switch to Yes. Drop-down list appears containing new provinces with additional tables. Some cells like buildings have blocked manual entry ( list of available appears on double click from already registered ones). Additional checks and restrictions to be implemented to minimize possible error.

## 5 Changes

### 5.1 v0.1

Initial commit mostly described in above text.

### 5.2 v0.2

Changes:

1. Full set of list for detail entry, data is now persistent when you change between provinces via drop down list.
2. Checks performed to disallow saving of invalid data. Important, checks are performed only after save button is pressed. If they fail file will not be written. Information about fail states province and table so it should be easy to fix.
3. Additional file introduced `limits_mapperhelper.json` to contain data that is not possible to extract from .lua file. This file is expected to be in same folder as .py it will be loaded without user action! For the moment it also contains gro types until it's properly fixed in further SOE changes.
4. WARNING - owner and capital table is dangerous since for the moment does not check is owner or capital already assigned in multiple places tbf in v0.3
5. WARNING - program still runs in mostly linear fashion i.e. once additional entries are unlocked going back and expanding minimal table is not supported tbf in v0.3
6. Recommendation for entry on restricted fields with long options list (nations best example 270+)  
- don't scroll type in field that activates search over the options list.