

TUIOBRIDGE

HELP

FILE

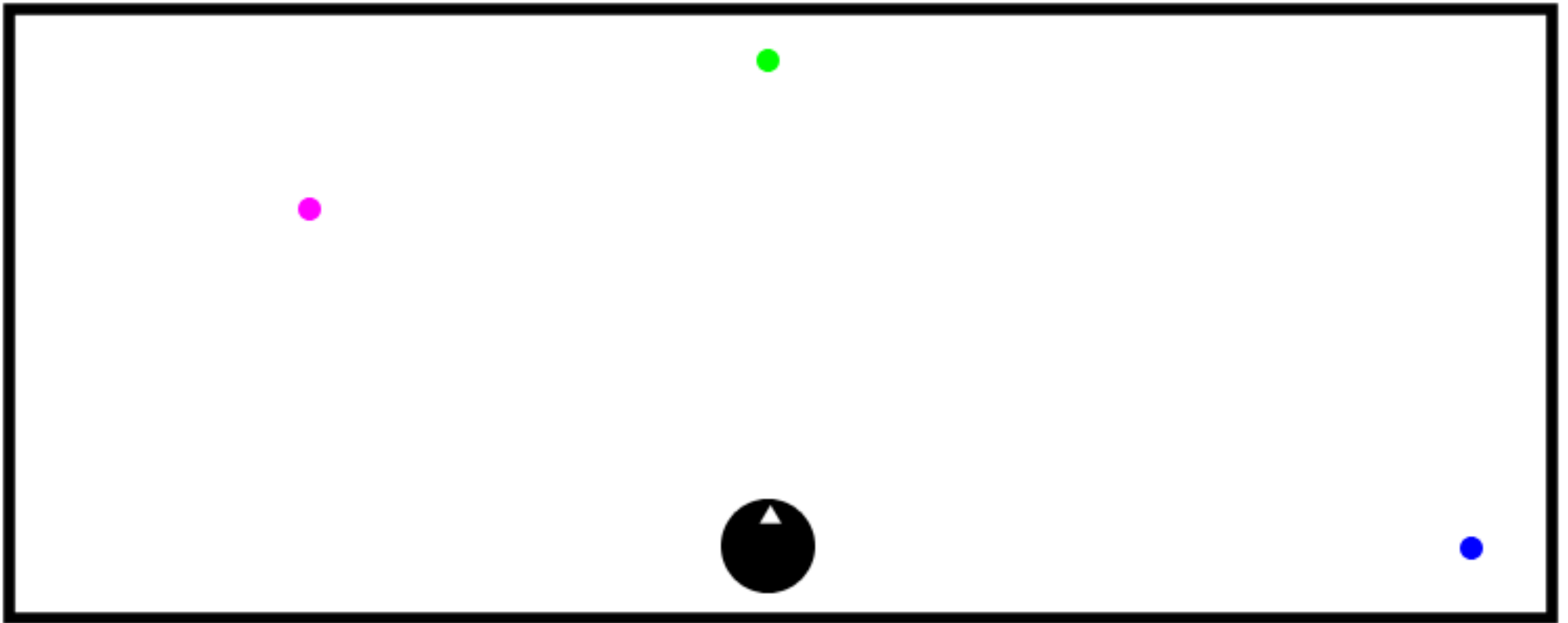
This PDF is a help file for the TUIO bridge component for the Rplidar S1 in Touchdesigner.

To use this bridge in your touchdesigner project, follow the instructions:

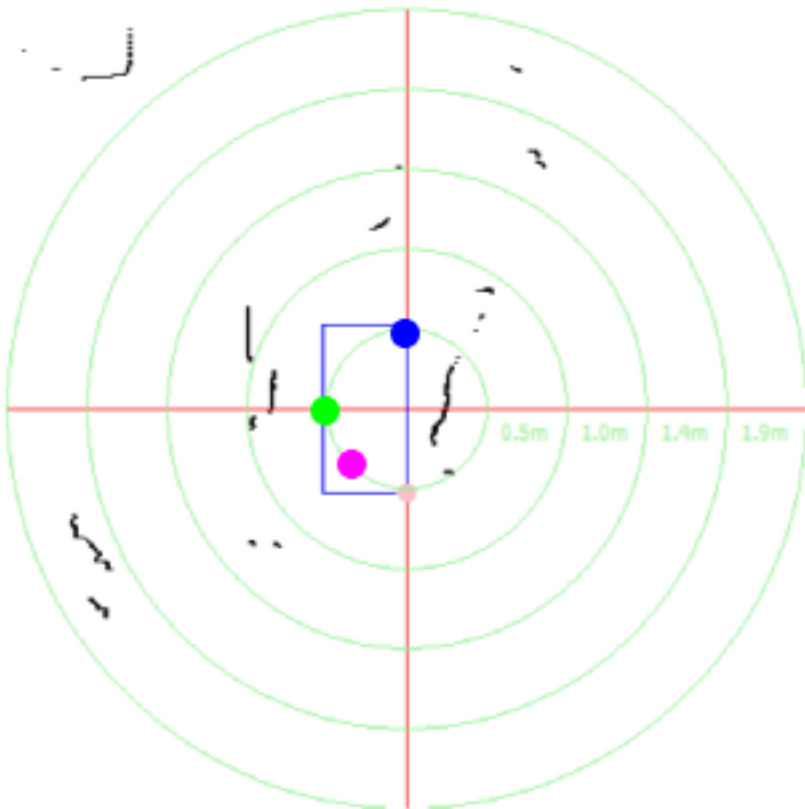
1. Press Tab to get your **operators window**
2. Once there, continue to press tab to cycle through different operator types until you get to the **COMP section**
3. Under COMP, select "**engine**" (You can alternatively type it into the search bar of the operator window)
4. In the **engine comp**, press the load option to load a custom tox
5. Navigate to this folder and load the custom tuiobridge.tox file
6. The framegrabber.NET.exe should boot up.
7. Check the **device manager** for the RPlidar COM port and select it in the drop down in Framegrabber
8. Enable "**multitouch tuio**" in the framegrabber.exe user interface
9. **Start the scan** in Framegrabber ***AFTER*** mapping it (instructions on next page). There are mapping templates saved in the "template" folder whose settings you can copy
10. Select the engine COMP and press 'p' to open the **parameters window**
10. Navigate to the **Custom page** and **switch the "start" toggle on**
11. Your u and v coordinates for every moving object in the red rectangle should up the engine comp viewer. If you select the 'topvschop' toggle, you will get the view of each object as **a white circle**

Debugging possibilities:

1. Check the Ports. The default tuio port is 3333
2. Make sure you don't have the .tox and an engine comp in the same file
3. You can use the .toe file to check the code and make alterations.
4. The .bat files (tuiostart, tuiokill) are both editable in notepad. Check the start file's filepath name

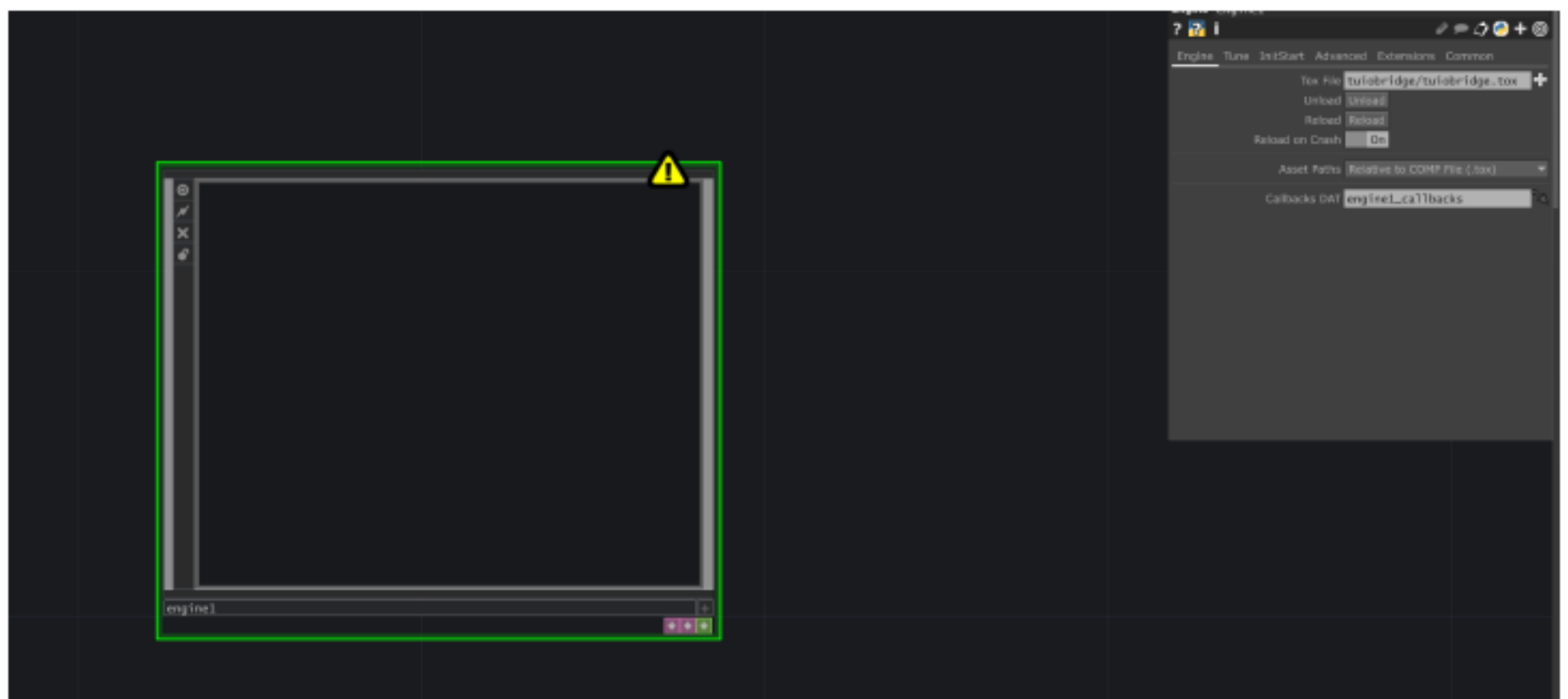


Point Cloud Map

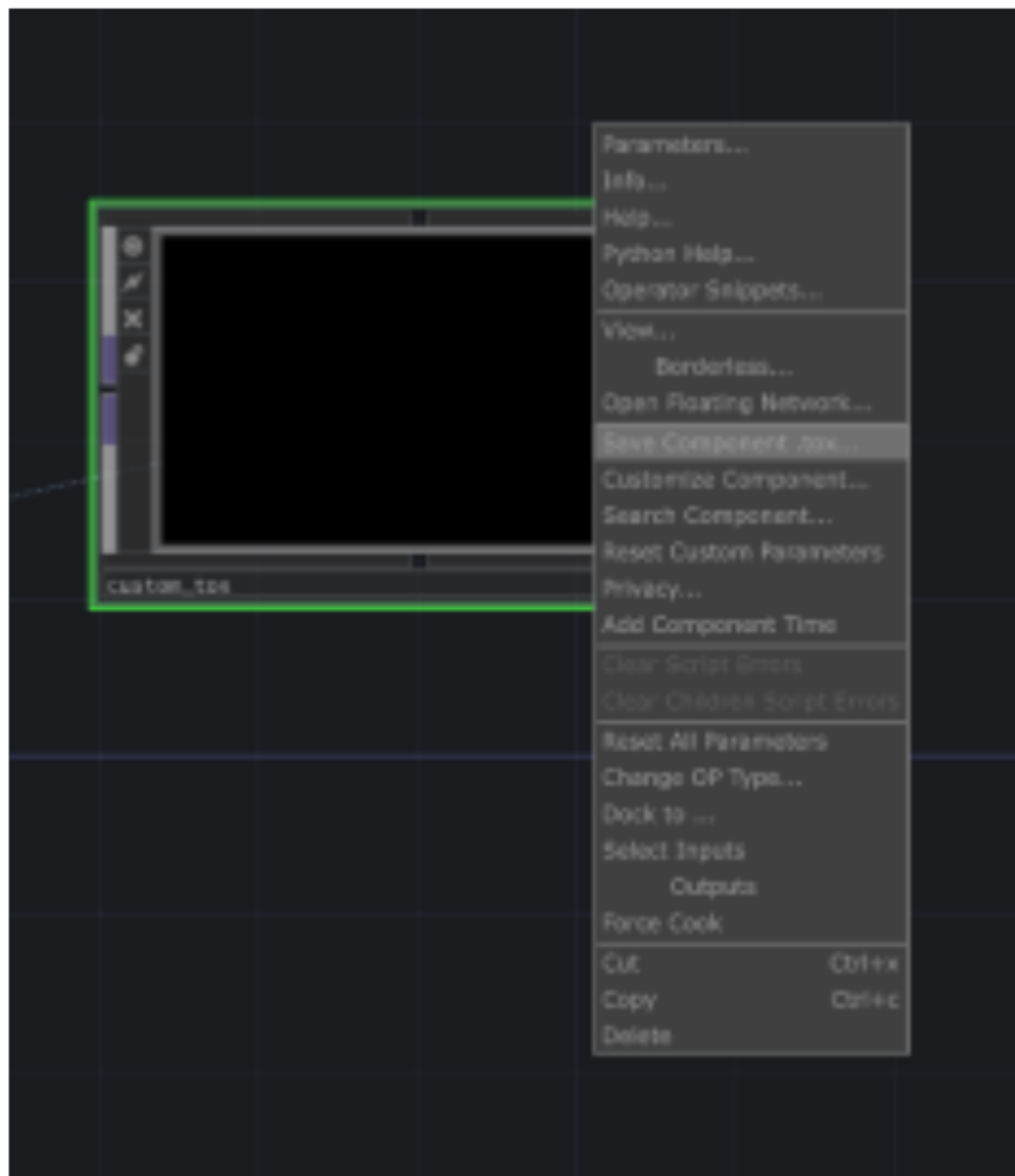


The Pointcloud map of your tuiobridge is rotated -90 degrees to your sensor's orientation. Your sensor's North will show up on the UI's West, West will show up as south etc. This is why you have to remap your framegrabber bounds (the blue rectangle that shows up as 'bias') to these adjustments.

The coloured dots on both diagrams (a table demo and the table template in the template folder) should demonstrate to you how the mapping works



On loading the Tox in the Engine COMP you will see some errors. This is completely normal as long as you get the data after starting the Tox. Do not worry about the errors unless there's no data piping in.



The original .toe and .tox files are there in case you want to debug and change them. In case of the .toe file, just zoom out till you see the container and then right click to see the dropdown that contains the "save component.tox". You can then rewrite the original "tuiobridge.tox" file.

There's a TOP inlet for custom resolutions, and a TOP+CHOP+DAT outlet for blob tracking and CHOP referencing