**Mapviz**

**a) Installation:**

Run the following commands in order:

***Note: All the commands below is just a one-time procedure setup.***

sudo apt-get install ros-melodic-mapviz ros-melodic-mapviz-plugins ros-melodic-tile-map ros-melodic-multires-image ros-melodic-gps-common

mkdir ~/mapproxy

sudo docker run -p 8080:8080 -d -t -v ~/mapproxy:/mapproxy danielsnider/mapproxy

If docker is not found, run the following commands, otherwise skip the corresponding steps:

sudo curl -sSL https://get.docker.com/ | sh

sudo usermod -aG docker {your\_username}

sudo apt-get update && sudo apt-get upgrade

**b) Setup:**

Run the following commands in order:

***Note: All the commands below till step 3 is just a one-time procedure setup, the remaining steps have to run everytime mapviz is launched on a different terminal:***

1) Replace the launch file from *mapviz* to the one in *Rover Codes 2020*.

sudo cp -f ~/Gazebo/rhinoceROS/src/atreus/config/mapviz.launch /opt/ros/melodic/share/mapviz/launch/mapviz.launch

2) Replace the config file from *mapviz* from the one that prompted you here.

3) Edit the file *.mapviz\_config* and change the path of the *rover\_vector.png* to:

From :

image: /home/leander/Rover\_Codes\_2020/GUI/mapviz/rover\_vector.png

To :

image: /home/{your\_username}/Rover\_Codes\_2020/GUI/mapviz/rover\_vector.png

4) Launch *mapviz*:

roslaunch mapviz mapviz.launch

**c) Error Debugging :**

Run the following commands if the ***map cache*** does not appear. Based on the errors displayed, correspondingly run the commands and then launch *mapviz*:

**1) ERROR: 1**

sudo docker run -p 8080:8080 -d -t -v ~/mapproxy:/mapproxy danielsnider/mapproxy

**2) ERROR: 401**

sudo docker container ls

sudo docker stop {container id}

sudo docker run -p 8080:8080 -d -t -v ~/mapproxy:/mapproxy danielsnider/mapproxy

**3) ERROR: 302**

Configured correctly. Poor internet connection.