

Assignment 3 Sidharth Sharma (2014163)

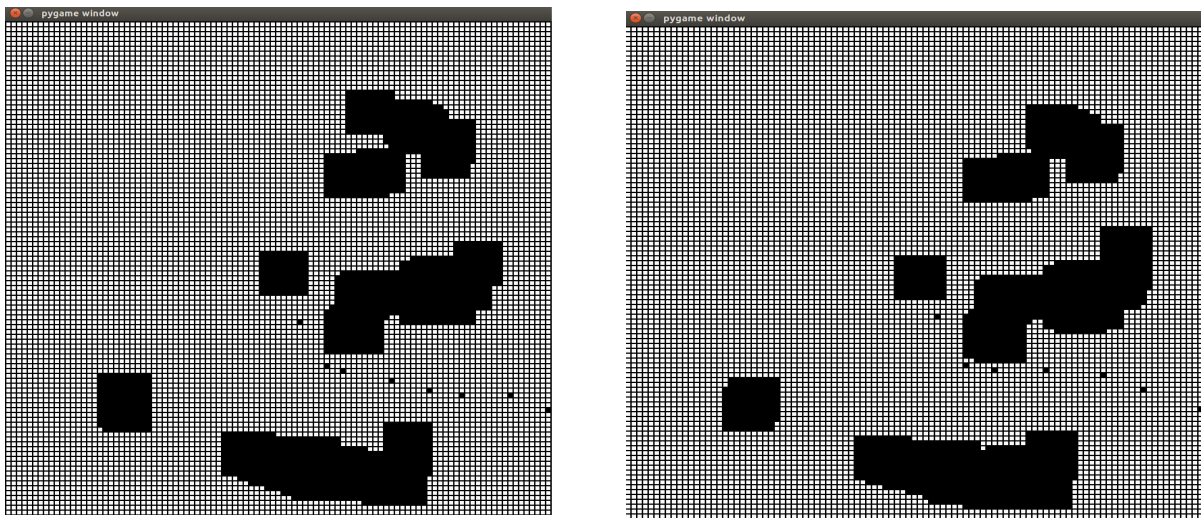
I have made two python scripts in this assignment
extract.py
gridmake.py

extract.py reads the bag file, and stores the occupancy grids available to it as time goes in individual text files.

Gridmake.py takes the matrix files and displays the data using pygame library.

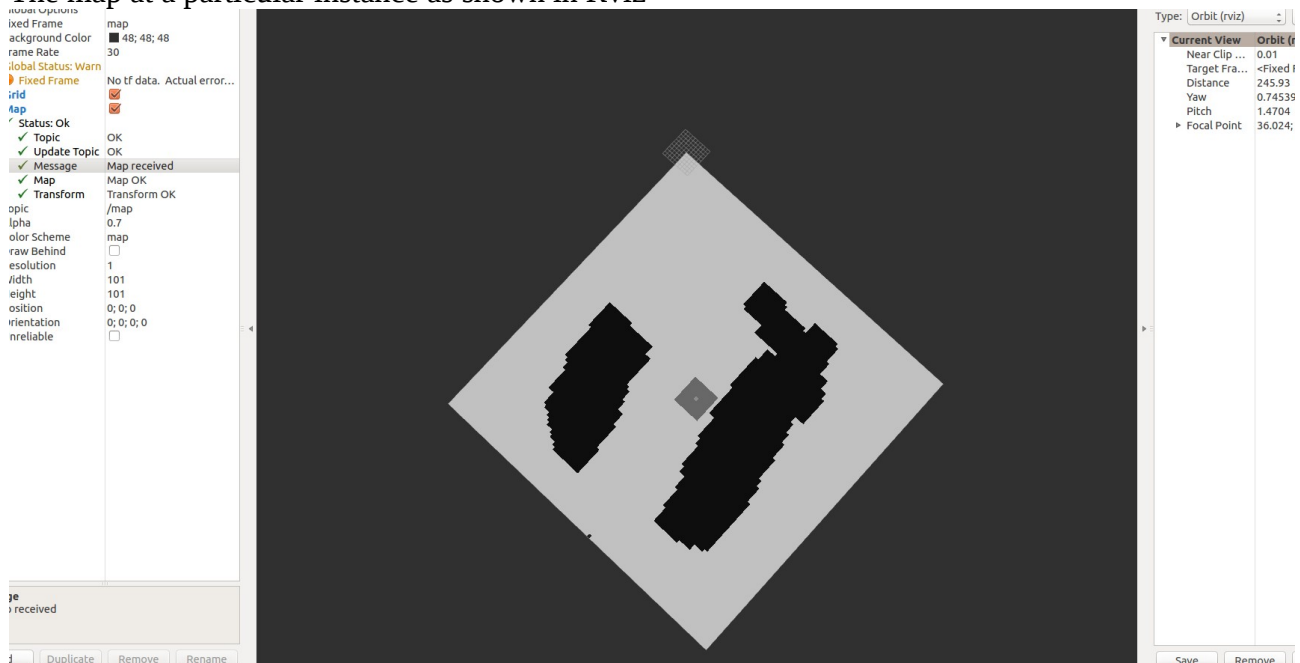
Here are the some of the outputs , the rest are saved as image files in the same directory.

The individual matrix files are also present



The matrix files, The occupancy grid image files and my python scripts , are all in /scripts folder of my RA3 package

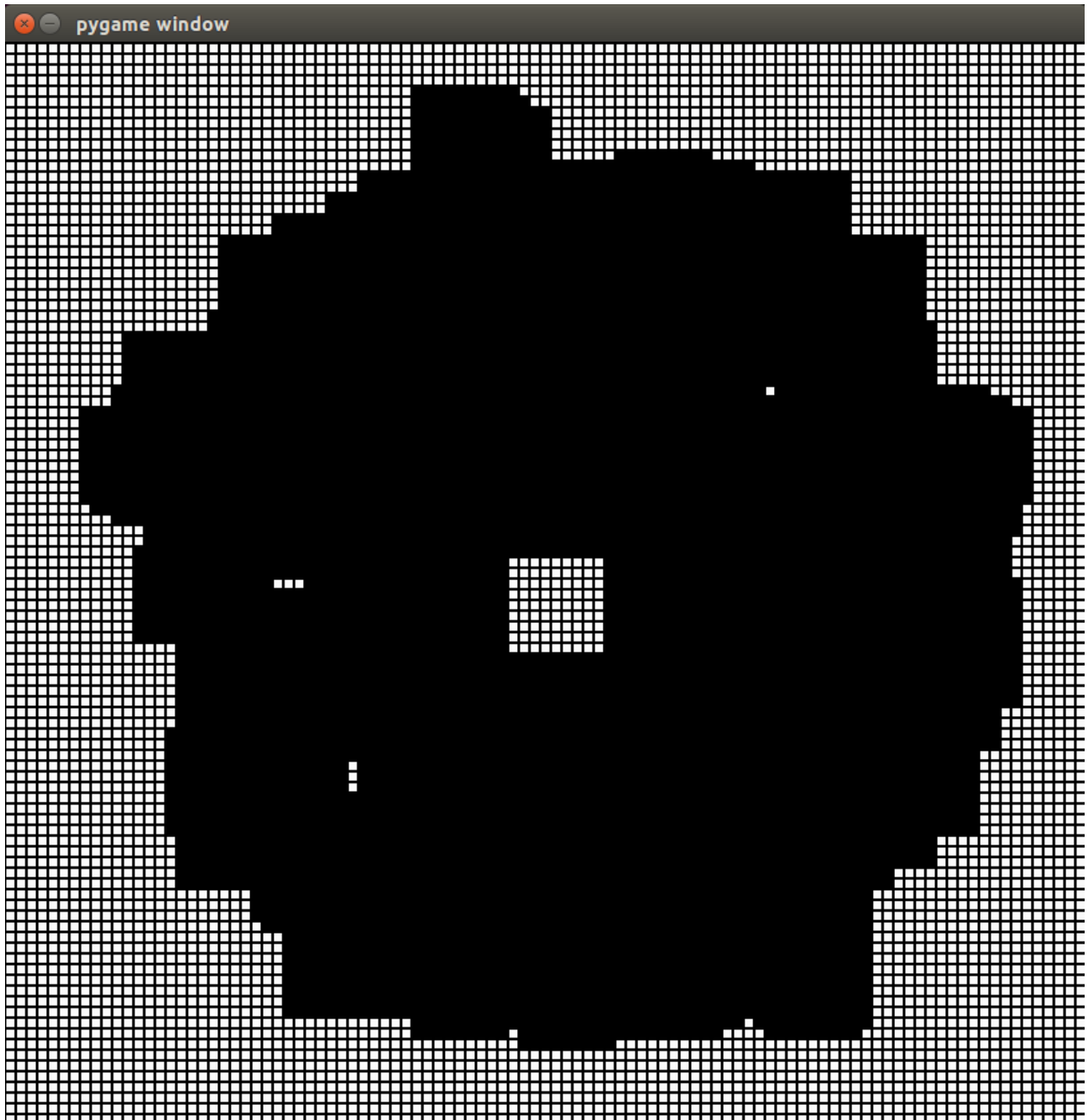
The map at a particular instance as shown in Rviz



As an addition,

I have also corrected the matrixnode.cpp file, that sir had sent. So it is compiling correctly now. The file matrixnode.cpp , creates a text file matrix.txt having the occupancy grid of the lidar data.

The output of this file is shown below



This is a 101X101 grid, made by reading the elements of the matrix.txt file as , 1->obstacle and 0->no obstacle.