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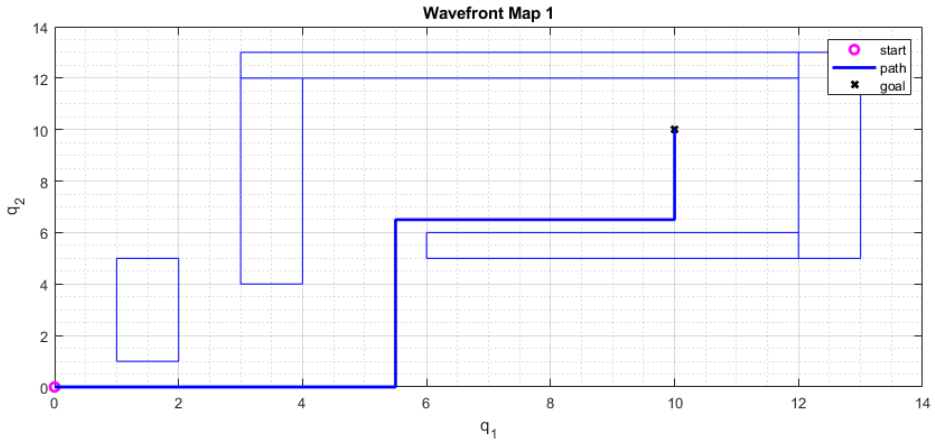
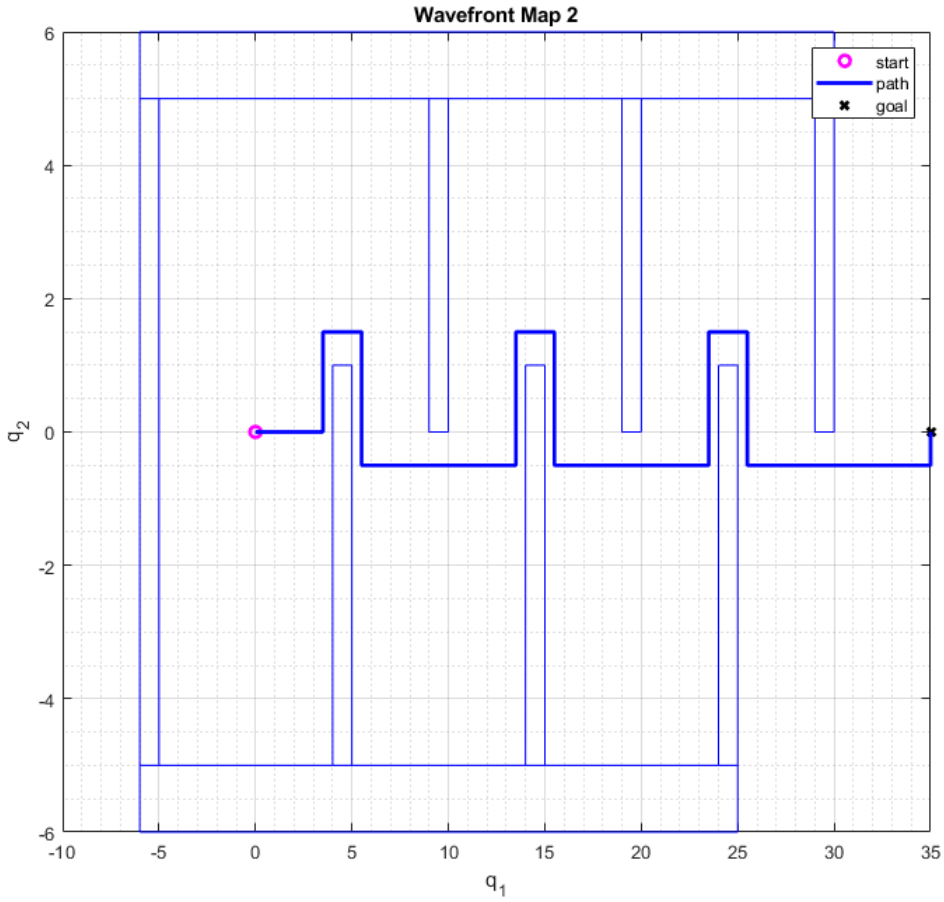
Plot Path Map 1



Plot Path Map 2



b)

The Length of the path for Map 1 = 20
The Length of the path for Map 2 = 47

c)

Yes, since the wavefront algorithm is a resolution complete algorithm. In other words, the more fine the grid is, the closer the robot can travel against the obstacles and in free space to minimize the Manhattan distance to goal

d)

This planner is resolution complete so as long as the resolution is high enough, there will be a path (as seen). The gradient descent

```
planner on the other hand presented local minimas as seen on the
 second
map and no path was found. However the wavefront planner, because it
 is
resolution dependent, gives non optimal paths. The gradient descent
 planner
gave a shorter path for map 1 than the wavefront planner
```

Published with MATLAB® R2019b