Contents

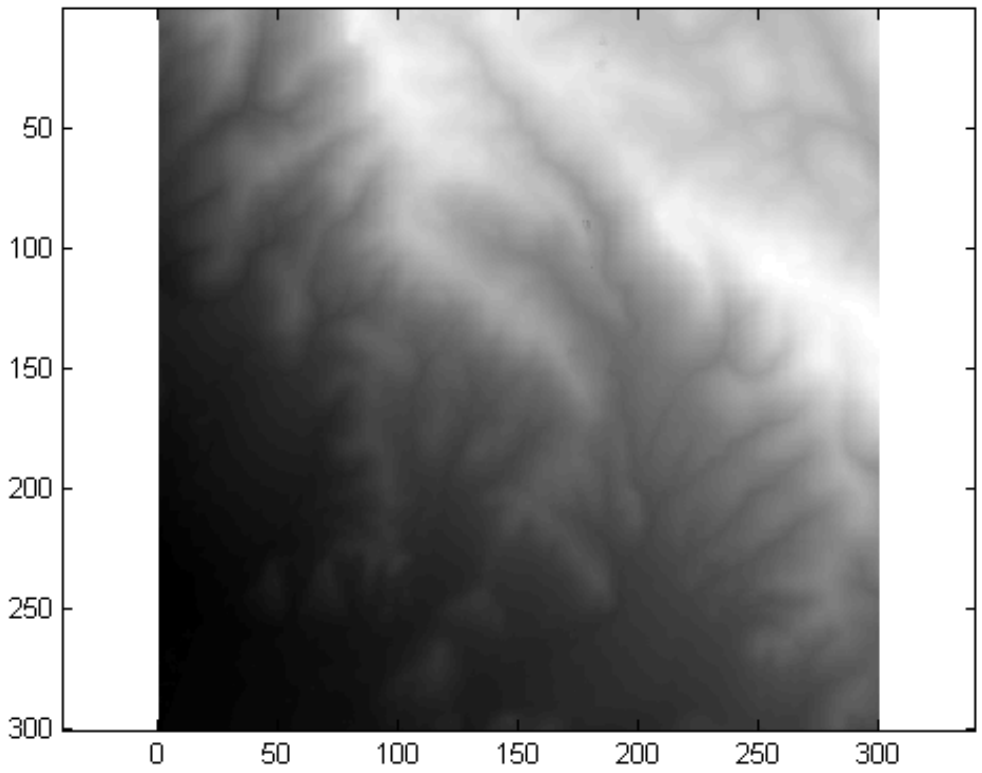
- Finding pits
- Path to high ground
- Finding rivers
- Flow greater than 500
- Flow greater than 2000


```
% Solution to assignment 5: Andrew Gerst

clear all; close all;
load elevation.mat

% Choose Map
cmap = map;

% Display Map
imagesc(cmap); axis equal; colormap gray;
```



Finding pits

```
pits = findpits(cmap);
peaks = findpits(-cmap);
[num_pits,pitc] = size(pits);
[num_peaks,peakc] = size(peaks);
num_pits
```

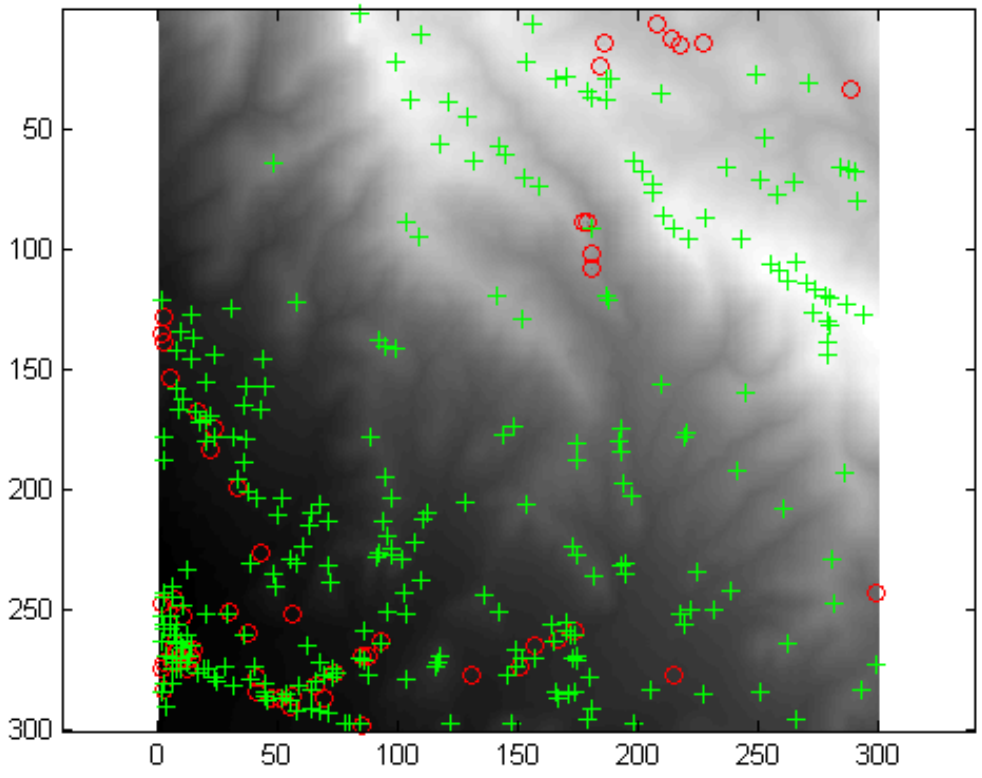
```
num_peaks
imagesc(cmap); colormap(gray); axis equal
hold on
plot(pits(:,2),pits(:,1),'ro');
plot(peaks(:,2),peaks(:,1),'g+');
hold off
```

```
num_pits =

    57
```

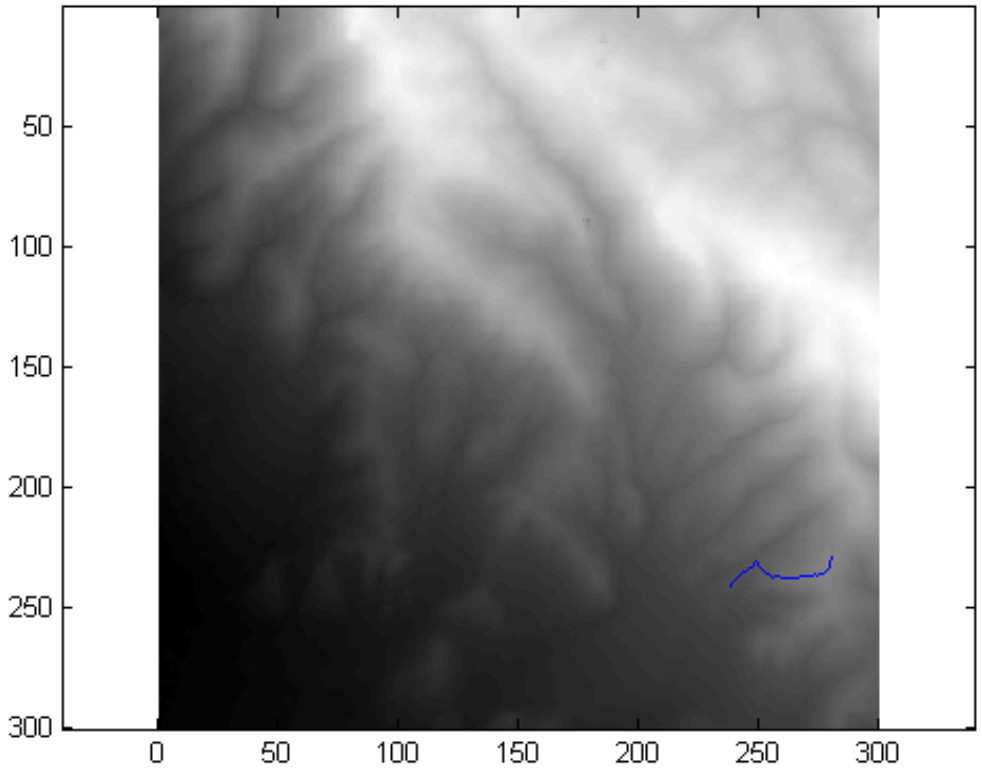
```
num_peaks =

   273
```



Path to high ground

```
path = findpath(cmap);
imagesc(cmap); colormap(gray); axis equal
hold on
plot(path(:,2),path(:,1),'b-');
hold off
```

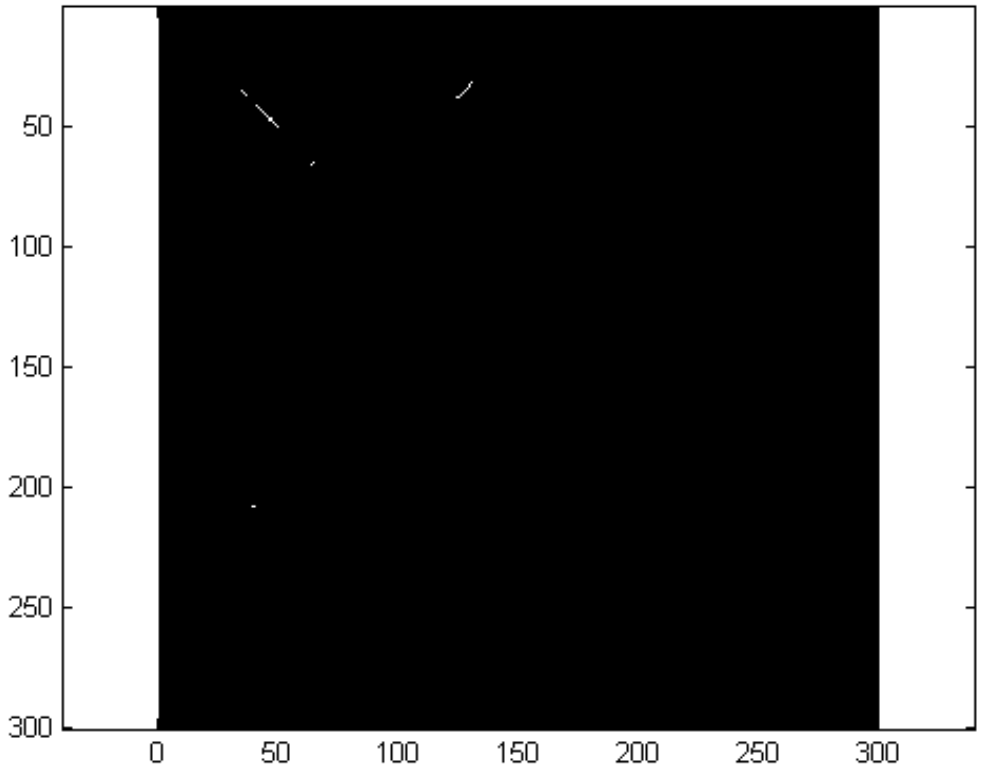


Finding rivers

```
rivers = flow(cmap);
```

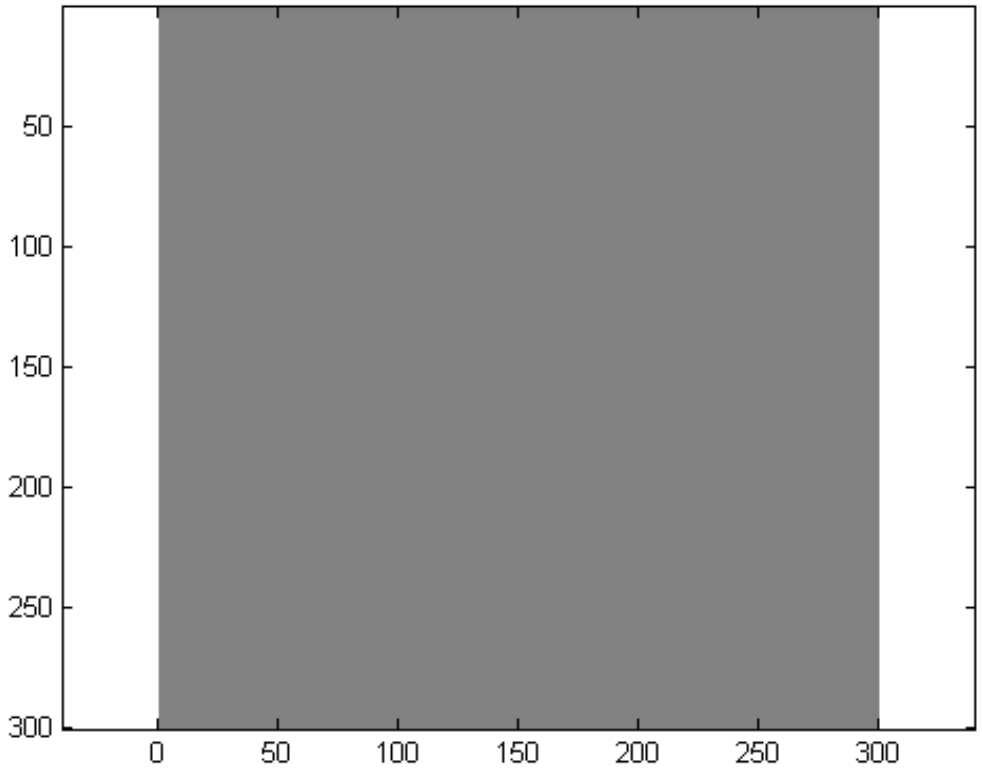
Flow greater than 500

```
imagesc(rivers > 500); axis equal; colormap gray;
```



Flow greater than 2000

```
imagesc(rivers > 2000); axis equal; colormap gray;
```



Published with MATLAB® 7.12