

Some comments on how to run the code:

- **Important:** the code is working with MATLAB 7. There are some problems with MATLAB 6.5 to load the ".mat" files and maybe some errors in the code itself.

- To run the code just run the function "run" with the picture file name and the file extension.

For example, to run the algorithm on a file called "testPic.tiff", type:

```
>> run('testPic', 'tiff');
```

What will happen now is that the mean shift algorithm will run; show the given picture with some information on its results plotted as red point and small green and blue circles, these are different phases in the mean shift algorithm.

After that the rest of the algorithm will run. It will show the original picture, the clusters (each shape will get a different gray color) and the edge map. It will find the symmetries shapes, and will show them on the original picture, and the circles in the picture and again it will show them in a separate figure.

- Since the mean shift algorithm is not a major part of my algorithm, I didn't optimized it too much, and it takes some time for it to run (several minutes for a small picture, 50*50 or 100*100 pixels) about $O(n^2)$, so I did a shortcut, after the mean shift algorithm it saves all its data to a file called: **testPic.mat**.

And now to run that file, just type:

```
>> run('testPic');
```

And the algorithm will load the file and continue as usual (it will just skip the mean shift part that takes all the time).

- And last thing, I added all the picture files I used in a ".tiff" format, and for convenient, I added also the ".mat" files of all of them, so it is not really needed to run the mean shift algorithm. To see the mean shift parameter just type "whos" or the variable name in the run function after it loads the file.