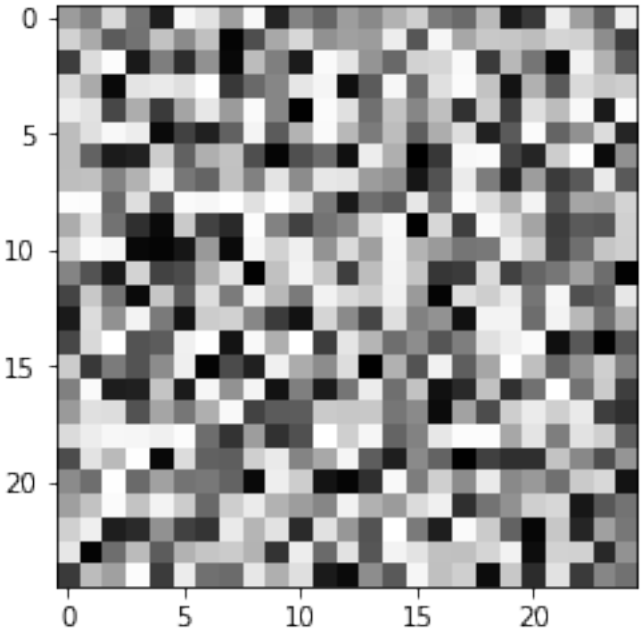
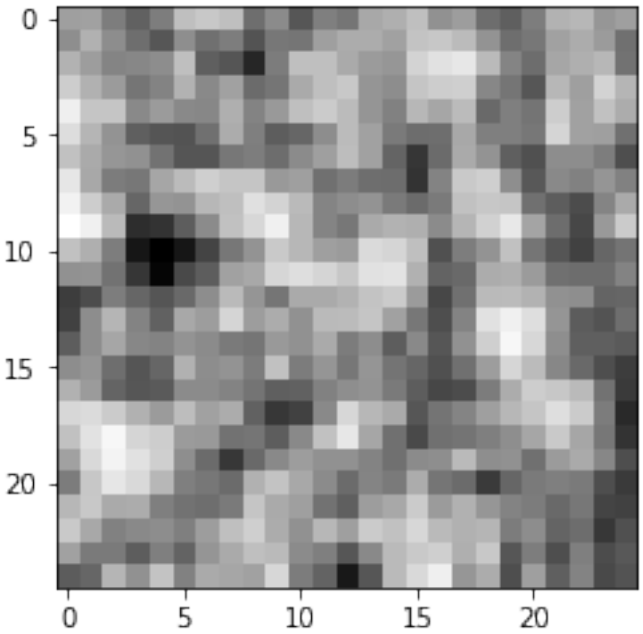
Masking

April 28, 2019

In [2]:
```
import cv2
import numpy as np
import matplotlib.pyplot as plt

def pad(img,shp):
        p=np.zeros((shp[0]+2,shp[1]+2))
        p[1:-1,1:-1]=np.copy(img)
        p[0,1:-1],p[-1,1:-1]=img[0],img[-1]
        p[1:-1,0],p[1:-1,-1]=img[:,0],img[:,-1]
        p[0,0],p[0,-1]=img[0,0],img[0,-1]
        p[-1,0],p[-1,-1]=img[-1,0],img[-1,-1]
        return p


shp=(25,25)
img = np.floor(np.random.random(shp)*255)


shpm=(3,3)
mask=np.full(shpm,1)
p=pad(img,shp)
out=np.zeros((shp))

for i in range(shp[0]):
        for j in range(shp[1]):
                temp=np.multiply(p[i:i+shpm[0],j:j+shpm[1]],mask)
                temp2=temp.sum()
                out[i,j]=temp2

out=out/9
out=out.astype(int)
fig = plt.figure(100)
fig.canvas.set_window_title('Original image')
plt.imshow(img, cmap="Greys")

fig = plt.figure(200)
fig.canvas.set_window_title('Masked')
```

```
plt.imshow(out, cmap="Greys")

plt.show()
```





In [3]:

Out[3]: '3.4.4'

In [ ]: