

Forensically is a web based forensic photo tool.

I used Forensically beta version to check it out; explored and discovered quite a lot

Exploring the tools:

1. **Magnifier** (aka zoom factor)

It increases the size of the pixels and makes it possible to see if there has been any change to the picture.

Though as the *magnification* goes higher its difficult to identify the sections that were edited.

2. **Clone detection**

Selects certain areas of the picture which have similarities with other areas.

As *minimal similarity* is increased, it “determines how similar the clones pics need to be to the original”; but less clones are detected.

Recommended value - 0.01

*Minimal Detail* - Blocks with less detail than this are not considered when searching for clones

*Minimal Cluster Size* - to get similar areas in which clones have to be found in order for them to show up as results. Identified by the red lines displayed, best to leave at default size.

*Blocksize* - Determines how big the blocks used for the clone detection are. Left at default size.

*Maximal image size* - The maximal width or height of the image used to perform the clone search. Bigger images take longer to analyze.

*Show Quantized Image* - Shows the image after it has been compressed. Can be useful to tweak Minimal Similarity and Minimal Detail. Blocks that have been rejected because they do not have enough detail show up as black.

3. **Error Level Analysis**

This tool compares the original image to the recompressed version. This makes manipulated regions stand out in ways that are brighter or darker than other regions which have not been manipulated.

*JPEG Quality* - This should match the original quality of the image that has been photoshopped.

4. **Noise analysis**

Noise is random variation of brightness or color information in images.

This tool is basically an “x-ray” of the image.

*Noise amplification* - Makes the noise brighter.

*Equalize histogram* - Applies histogram equalization to the noise, this can reveal things but it can also hide them.

*Opacity* - The opacity of the noise layer; if lowered more of the original image is seen.