

Stain Selection Program Description

This program selects structures based on color/stain and size in a digital image of a tissue slide. It could also be used to select red tomatoes from a digital image of a garden, or blue stars from a digital image of a star field.

This is a [Python](#) program. It uses [OpenCV](#) and [Numpy](#) to process the digital input image. The Graphic User Interface was constructed with [Page](#). [PyInstaller](#) was used to generate the “dist” version of this program that will run on computers without a full installation of Python.

The lower and upper Hue, Saturation, and Value set the range for the color of the items of interest. For example, the shades of red identifying a ripe tomato.

Gaussian Blur is used to smooth the image, reducing spots, rough edges etc.

Area Threshold sets the minimum number of pixels for an object of interest. This can be used to filter out spot like items.