Github page:   
  
  
**SIP GRAMMAR**

<statement> -> <method> | <assignment>

<assignment> -> <img\_assignment> | <method\_assignment>

<method> -> <method\_np> | <method\_1p> | <method\_2p> | <method\_no>

<method\_no> -> **METHOD\_NO LP STRING RP**

<method\_np> -> **ID DOT METHOD\_NP LP RP**

<method\_1p> -> **ID DOT METHOD\_1P LP DIRECTION RP**

| **ID DOT METHOD\_1P LP LEVEL RP**

| **ID DOT METHOD\_1P LP STRING RP**

<method\_2p> -> **ID DOT METHOD\_2P LP INT COMMA INT RP**

<img\_assignment> -> **ID EQUALS ID**

<method\_assignment> **-> ID EQUALS** <method\_no>

**Refence Manual**

**Types**

**2D Images**

* Also known as binary images, these types are only capable of performing tasks that do not require the image being modified to have 3 matrices represent them. Performing a wrong command will result in a warning explaining so.

**3D Images**

* All types of images represented with 3 matrices, each representing their respective colors (RGB).

**Variables**

All variables will only be images represented as arrays of numbers representing pixels and can only be initialized by assigning an image or assigning it to a command reading an image file.



**Functions**

**blur**(**LEVEL**)

* **Parameters:** Will require the user to input intensity of the blur in the form of medium, low or high.
* **blur** – It will reduce image noise and reduce detail to the image this function is being used on.

**Example:**



**rotate**(**DIRECTION**)

* **Parameters:** Will require the user to input which direction would he like it to rotate to, right or left.
* **rotate –** Will rotate the image 90 degrees to the side that was input.

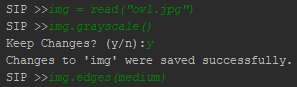
**Example:**



**edges**(**LEVEL**)

* **Parameters:** Will require the user to input intensity of the blur in the form of medium, low or high.
* **edges –** Finds the boundaries of objects within the images. Works by detecting discontinuities in brightness. **This method can only be called onto 2D images.**

**Example:**



**sharpen(LEVEL)**

* **Parameters:** Will require the user to input intensity of the blur in the form of medium, low or high.
* **sharpen –** Emphasizes the texture and drawing viewer focus to the image.

**Example:**



**save(STRING)**

* **Parameters:** Will require the user to input the name of the new file to be saved as well as its image format between quotation marks.
* **save –** Will save the copy of the image being used onto the project folder with the name given.

**Example:**



**resize(INT COMMA INT)**

* **Parameters:** Will require the user to inputthe **Width** and **Height** preferred onto the image.
* **Resize –** Will resize the image to fit the dimensions used as parameters.

**Example:**



**crop(INT COMMA INT)**

* **Parameters:** Will require the user to inputthe **Width** and **Height** preferred onto the image.
* **Crop -** Crop with respect to the center of the image, parameters cannot be larger than the dimensions of the image.

**Example:**



**spiral(INT COMMA INT)**

* **Parameters:** Will require the user to input the strength of the spiral and the radius onto which it will apply the spiral animation on the picture.
* **Spiral** – Will apply a spiral effect onto the image.

**Example**:

