

giftsh: a DSL and shell for image transformations



Command list

blur	value > 0	mean	local mean size (odd positive integer)
brightness	value (-100, 100)	median	local median size (odd positive integer)
colorbalance	red green blue (-100, 500)	min	local minimum size (odd positive integer)
colorize	hue (0-360) saturation (0-100) value (0-100)	opacity	value (0-100)
colorspace	l for linear->sRGB or s for sRGB->linear	pixelate	pixels
contrast	value (-100, 100)	resize	width height
crop	x1 y1 x2 y2 (rectangle at (x1,y1) and (x2,y2))	resizefill	width height
cropsizes	width height	resizefit	width height
edge	edge filter	rotate	degrees counter-clockwise
emboss	emboss filter	saturation	value (-100, 500)
flipH	flip horizontal	sepia	value (0-100)
flipV	flip vertical	sigmoid	midpoint (0,1) factor (-10,10)
gamma	value (< 1 darken, > 1 lighten)	sobel	sobel filter
gray	grayscale image	threshold	color threshold percentage (0-100)
hue	value (-180, 180)	transpose	flip horizontally and rotate 90° counter-clockwise
invert	invert image	transverse	flip vertically and rotate 90° counter-clockwise
max	local maximum size (odd positive integer)	unsharp	sigma (> 0) amount (0.5, 1.5) threshold (0, 0.05)

Transformations



original

blur

brightness

colorbalance

colorize

colorspace-l

colorspace-s

contrast

crop



cropsite

edge

emboss

fliph

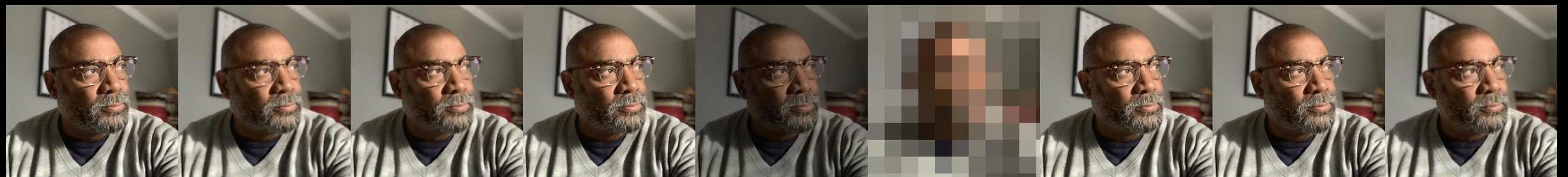
flipv

gamma

gray

hue

invert



max

mean

median

min

opacity

pixelate

resizefill

resizefit

resize



rotate

saturation

sepia

sigmoid

sobel

threshold

transpose

transverse

unsharp

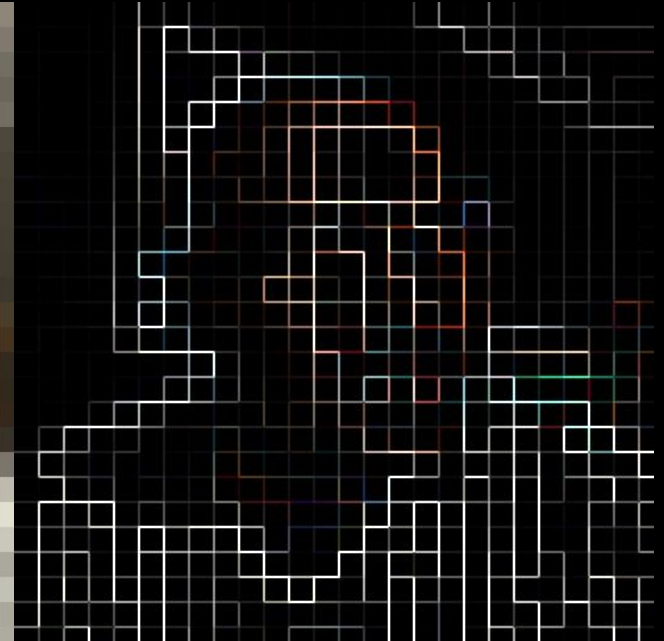
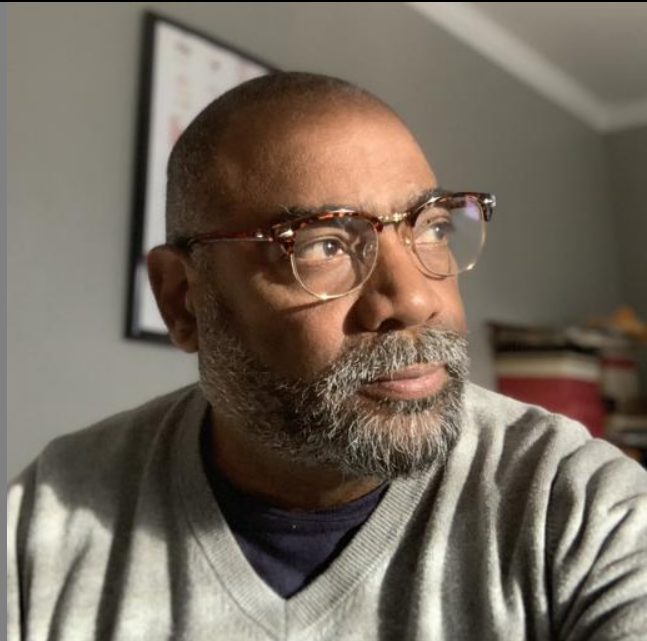
Install and run

```
go install github.com/ajstarks/giftsh@latest
```

<code>giftsh</code>	commands from stdin, output to stdout
<code>giftsh < f.gsh > f.jpg</code>	commands from f.gsh, output to f.jpg
<code>giftsh -o f.jpg</code>	commands from stdin, output to f.jpg
<code>giftsh -c f.gsh</code>	commands from f.gsh, output to stdout
<code>giftsh -c f.gsh -o f.jpg</code>	commands from f.gsh, output to f.jpg
<code>giftsh -c f.gsh -w f.jpg</code>	commands from f.gsh, write after each command
<code>giftsh -h</code>	show help and command set

script → giftsh → result

```
read ajs.jpg  
pixelate 10  
sobel
```



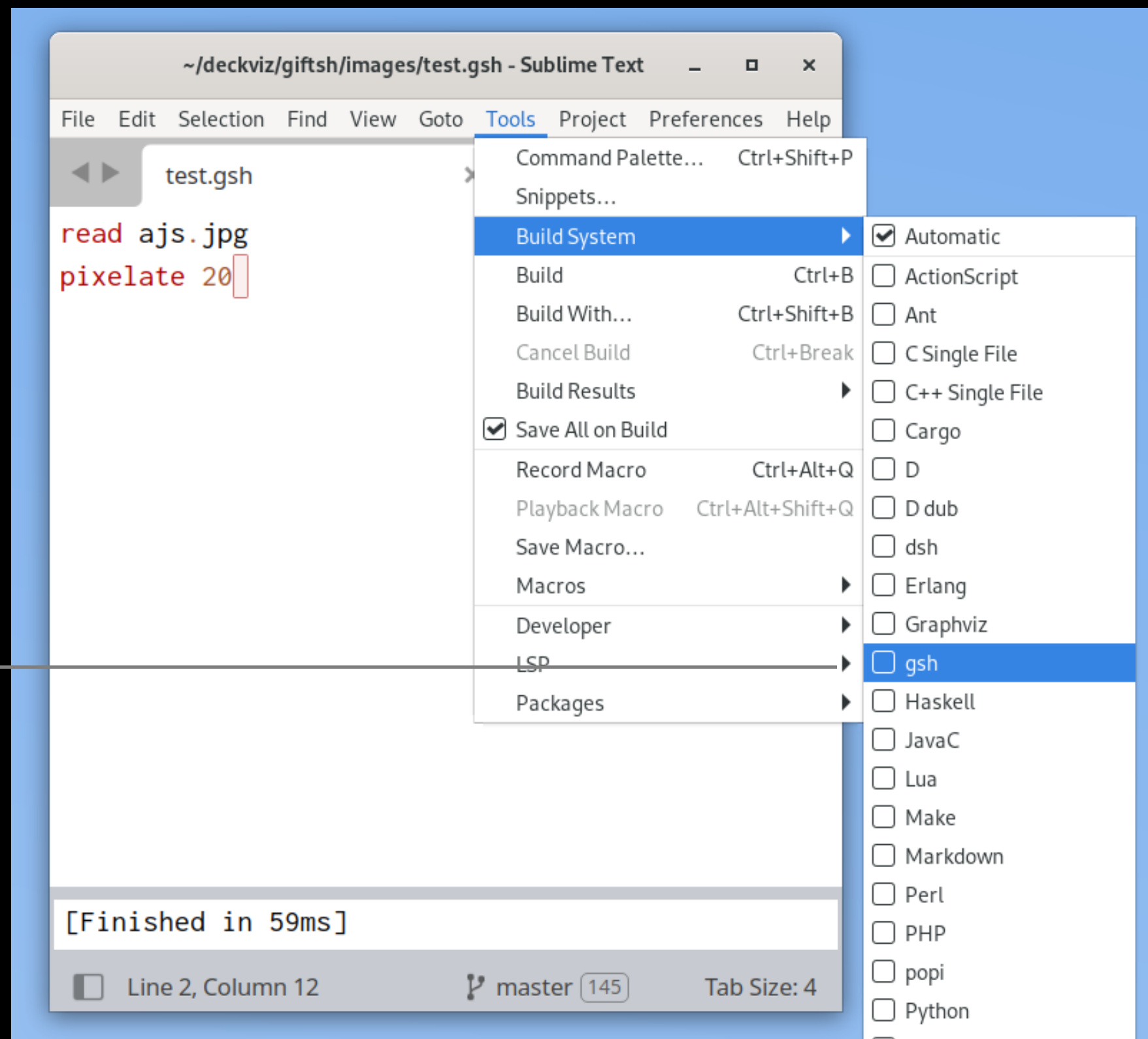
giftsh -c test.gsh -o test.jpg

Editor Setup

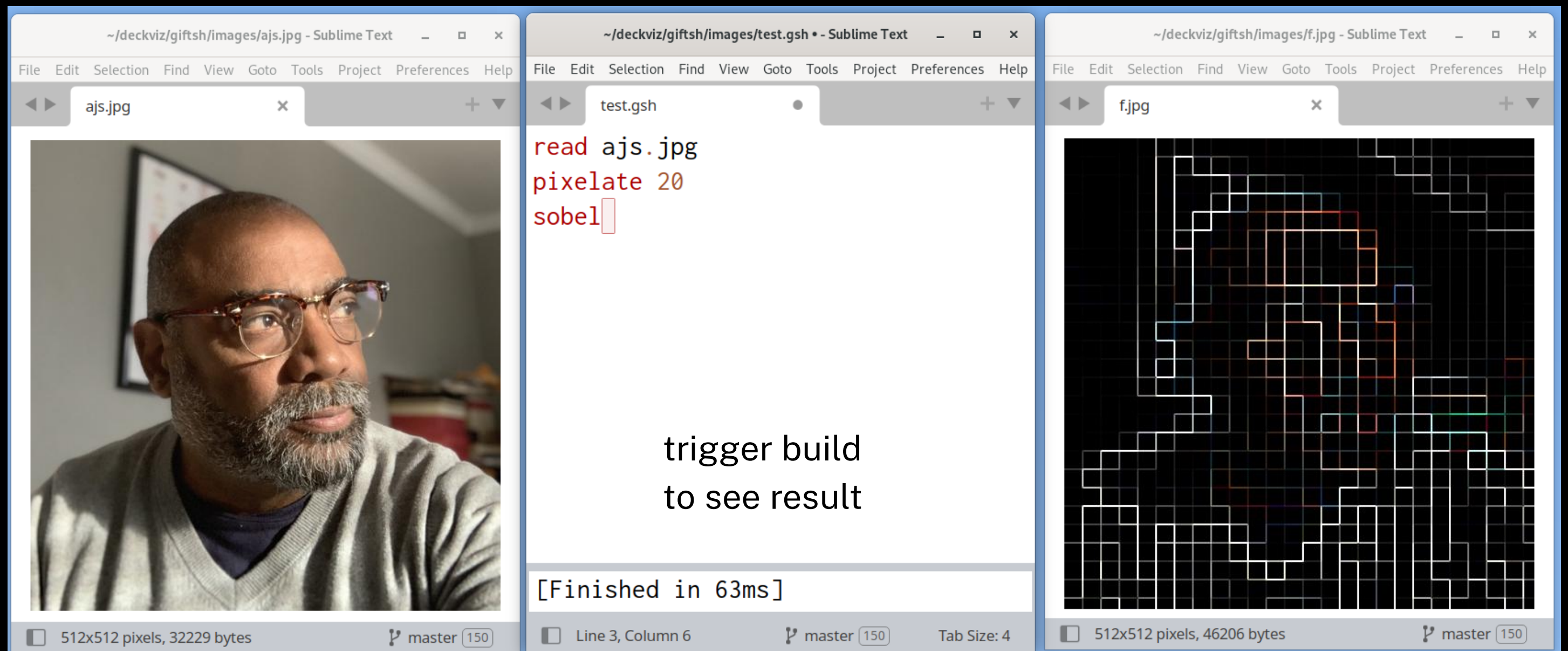
in <config-dir>/Packages/User/gsh.sublime-build:

```
{"shell_cmd": "giftsh < $file > f.jpg"}
```

Configure the
build system



Running



original

script

result

Script to generate image transformations

```
#!/bin/sh
(echo r ajs.jpg; echo blur 10) | giftsh > blur.jpg
(echo r ajs.jpg; echo brightness 20) | giftsh > brightness.jpg
(echo r ajs.jpg; echo colorbalance 200 0 0) | giftsh > colorbalance.jpg
(echo r ajs.jpg; echo colorize 200 100 100 ) | giftsh > colorize.jpg
(echo r ajs.jpg; echo colorspace l) | giftsh > colorspace-l.jpg
(echo r ajs.jpg; echo colorspace s) | giftsh > colorspace-s.jpg
(echo r ajs.jpg; echo contrast 20) | giftsh > contrast.jpg
(echo r ajs.jpg; echo crop 0 0 200 200) | giftsh > crop.jpg
(echo r ajs.jpg; echo cropsizes 100 100) | giftsh > cropsizes.jpg
(echo r ajs.jpg; echo edge) | giftsh > edge.jpg
(echo r ajs.jpg; echo emboss) | giftsh > emboss.jpg
(echo r ajs.jpg; echo fliph) | giftsh > fliph.jpg
(echo r ajs.jpg; echo flipv) | giftsh > flipv.jpg
(echo r ajs.jpg; echo gamma 2) | giftsh > gamma.jpg
(echo r ajs.jpg; echo gray) | giftsh > gray.jpg
(echo r ajs.jpg; echo hue 75) | giftsh > hue.jpg
(echo r ajs.jpg; echo invert) | giftsh > invert.jpg
(echo r ajs.jpg; echo max 3) | giftsh > max.jpg
(echo r ajs.jpg; echo mean 5) | giftsh > mean.jpg
(echo r ajs.jpg; echo median 5) | giftsh > median.jpg
(echo r ajs.jpg; echo min 5) | giftsh > min.jpg
(echo r ajs.jpg; echo opacity 60) | giftsh > opacity.jpg
(echo r ajs.jpg; echo pixelate 50) | giftsh > pixelate.jpg
(echo r ajs.jpg; echo resizefill 512 512) | giftsh > resizefill.jpg
(echo r ajs.jpg; echo resizefit 512 512) | giftsh > resizefit.jpg
(echo r ajs.jpg; echo resize 200 200) | giftsh > resize.jpg
(echo r ajs.jpg; echo rotate 45) | giftsh > rotate.jpg
(echo r ajs.jpg; echo saturation 200) | giftsh > saturation.jpg
(echo r ajs.jpg; echo sepia 100) | giftsh > sepia.jpg
(echo r ajs.jpg; echo sigmoid 0.5 0) | giftsh > sigmoid.jpg
(echo r ajs.jpg; echo sobel) | giftsh > sobel.jpg
(echo r ajs.jpg; echo threshold 60) | giftsh > threshold.jpg
(echo r ajs.jpg; echo transpose) | giftsh > transpose.jpg
(echo r ajs.jpg; echo transverse) | giftsh > transverse.jpg
(echo r ajs.jpg; echo unsharp 1 1 0.05) | giftsh > unsharp.jpg
```