

# Image Functions

To use these functions, the Image Feature is required.

## Fill(Image i, Number c)

Fills the image with the given color

### Example

```
SELECT fill(image, 0.5) FROM Stream
```

## Inv(Image i)

Inverts the pixel values of the given image

### Example

```
SELECT inv(image) FROM Stream
```

## Get(Image i, Number x, Number y)

Return the value of the pixel at the given location

### Example

```
SELECT get(image, 100, 100) FROM Stream
```

## Set(Image i, Number x, Number y, Number c)

Set the pixel at the given location to the given value

### Example

```
SELECT set(image, 100, 100, 0.5) FROM Stream
```

## Rotate(Image i, Number angle)

Rotates the image at the given angle in degree.

### Example

```
SELECT rotate(image, 90.0) FROM Stream
```

## Resize(Image i, Number width, Number height)

Resize the image to the given width and height

### Example

```
SELECT resize(image, 500, 500) FROM Stream
```

## Sub(Image i, Number x, Number y, Number width, Number height)

Returns a sub image at the given location and the given width and height.

- Fill(Image i, Number c)
- Inv(Image i)
- Get(Image i, Number x, Number y)
- Set(Image i, Number x, Number y, Number c)
- Rotate(Image i, Number angle)
- Resize(Image i, Number width, Number height)
- Sub(Image i, Number x, Number y, Number width, Number height)
- ToImage(<Number width, Number height>|<Matrix matrix>)
- ToMatrix(Image i)

**Example**

```
SELECT sub(image, 5, 5, 200, 200) FROM Stream
```

**ToImage(<Number width, Number height>|<Matrix matrix>)**

Creates a new image with the given width and height

**Example**

```
SELECT toImage(500, 500) FROM Stream
```

**ToMatrix(Image i)**

Return the pixel values of the given image as a matrix