

IP Workshop: OpenCV Images

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May 14, 2017

Overview

1 Images / Arrays

2 Image I/O

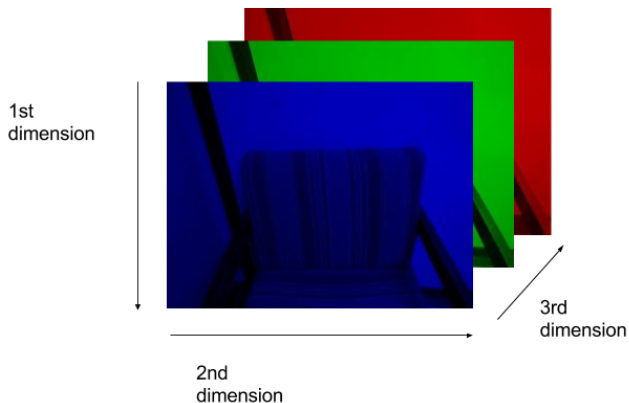
OpenCV images are NumPy arrays

- OpenCV images are stored in a manner consistent with our raster graphics model
 - An image is rectangular array of pixels
 - Each pixel has three color channel values (RGB)
- OpenCV images = 3D NumPy arrays
- Remember the coordinate system, and think BGR vs. RGB

OpenCV images are NumPy arrays



OpenCV images are NumPy arrays



Reading, displaying, saving

- OpenCV has methods for reading, displaying, and saving images
- All popular formats supported
- In Python programs, we gain access to the OpenCV library via the **import cv2** statement

Reading, displayng, saving

See the `Workshops/image-processing/02-opencv-images/0open.py` program for examples of reading, displaying, and saving images.

Key methods:

- `cv2.imread()`
- `cv2.namedWindow()`
- `cv2.imshow()`
- `cv2.waitKey()`
- `cv2.imwrite()`