1 Setting up the Environment on Ubuntu

Install the OpenCV, TCLAP, and Git packages:

1. sudo apt-get install libcv-dev libcv2.1 libcvaux-dev libcvaux2.1 libhighgui-dev libhighgui2.1 libtclap-dev git -y

2 Downloading the Code

1. *mkdir code*
2. *cd code*
3. *git init*
4. *git remote add origin git://github.com/missionpilot/foxglove.git*
5. *git pull origin master*

3 Compiling the Code

1. Change to the *code* directory and run *make*
2. If changes have been made to the code, run *make clean* before running *make* again.

4 Executing the Program

Executing *./main --help* or *./main -h* will provide an exhaustive list of arguments and default parameters. The only required parameter is the input file[1].

5 Examples

1. Add Additive White Gaussian Noise(zero-mean) with standard deviation of 0.1 to a file and then save the output as a JPEG.

   ./main data/lena_512.png data/lena_512_noise.jpg -v 0.1

2. Run 50 iterations of Non-Convex model, and apply noise on-the-fly to a clean file before displaying output in a window instead of saving to a file.

   ./main data/lena_512.png -n -v 0.1 -m non-convex -i 50

3. Run Buades' version of the Non-Local Mean method.

   ./main data/lena_128.png -m nlm-naive -n

[1] A file can either be an image or an AVI.