This folder contains MATLAB software to accompany the paper

Total Variation Denoising via the Moreau Envelope
Author: Ivan Selesnick
Journal: IEEE Signal Processing Letters
Status: To be published 2017

List of programs

mtvd.m   Moreau-enhanced TV denoising
tvd.c   Standard TV denoising (program by Condat)
mtvd_demo1.m   Demonstration program
blocks.txt   Original blocks signal (from WaveLab)
blocks_noisy.txt   Noisy signal for demo

The program tvd.c is a C program by Laurent Condat for fast exact
TV denoising. The algorithm is described in 'A direct algorithm
for 1D total variation denoising', L. Condat, IEEE Signal Proc.
Letters, 20(11):1054-1057, 2013. To compile this program to use it
in MATLAB, type 'mex tvd.c' at the MATLAB command line.

http://www.gipsa-lab.fr/~laurent.condat/download/condat_fast_tv.c

---
The blocks signal comes from WaveLab (wavelet software).

http://statweb.stanford.edu/~wavelab/

Contact Information:
Ivan Selesnick
Email: selesi@nyu.edu
Department of Electrical and Computer Engineering
Tandon School of Engineering
New York University
6 Metrotech Center
Brooklyn, NY 11201
USA

Last edit: December 30, 2016