

A quick way to process two input images is

```
im1 = imread('your_first_frame_name');  
im2 = imread('your_second_frame_name');  
uv = estimate_flow_interface(im1, im2, 'classic+nl-fastp');
```

The output uv is an M x N x 2 matrix.

You can also run the demo program estimate_flow_demo.m and follow it to try different methods and parameter setting. Have fun!

Any scientific work that makes use of our code should appropriately mention this in the text and cite our IJCV paper (see below).

Typical input and output

```
uv = estimate_flow_demo;  
output "AAE 2.371 average EPE 0.075"  
  
im1 = imread('data/sintel/ambush_5/frame_0036.png');  
im2 = imread('data/sintel/ambush_5/frame_0037.png');  
uv = estimate_flow_interface(im1, im2, 'classic+nl-fastp');  
tuv = readFlowFile('data/sintel/ambush_5/frame_0036.flo');  
[aae stdae aepe] = flowAngErrUV(tuv, uv, 0);  
fprintf('\nAAE %3.3f average EPE %3.3f \n', aae, aepe);  
output "AAE 19.738 average EPE 19.074"
```

Possible errors

Error using ==> \

Out of memory. Type HELP MEMORY for your option.

Uncomment this line in estimate_flow_interface.m

```
%ope.solver = 'pcg';
```

You may need to compile utils/mex/sor.pp file to use the sor solver or download some MATLAB sor solver.

Acknowledgment

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References

Sun, D.; Roth, S. & Black, M. J. "Secrets of Optical Flow Estimation and Their Principles" IEEE Int. Conf. on Comp. Vision & Pattern Recognition, 2010

Sun, D.; Roth, S. & Black, M. J. "A Quantitative Analysis of Current Practices in Optical Flow Estimation and The Principles Behind Them" International Journal of Computer Vision, 2013