CSE 803: CV      HW #7B      Fall 2008

Report due Saturday, 6 Dec, by 5:00 PM.
No late work; you must hand in what you have by this deadline.

Report on the following experiments, being sure to describe your mathematical methods, computer work, and results. If you choose this homework your report will be worth about 18 per cent of your final grade and your final exam will be shorter than if you choose HW7.

1. Obtain Shape-from-Motion software from some lab or software library on the Internet. Carefully describe the source of the software and how to use it.

2. Apply the software on TWO sets of images to compute the 3D coordinates of points and also the translation and rotation of the camera. The images in the folder StereoImagesA are a good first test set. A second test set will be added in the final week or, you can construct your own test images.

3. Using your favorite image tool, select corresponding points from each image of the set. Report the image coordinates of all points in the images and compute (and report) the 3D coordinates of each of these points using the Shape-from-Motion algorithm. Report the accuracy of the computation of the 3D corner points of the jig in your first test case.

4. Report the camera motion between all image pairs used, in the terms used by the SfM algorithm.