

Popules: Moving Object Removal from Multiple Static Scene Images

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For our project we hope to explore options for the removal of moving objects from several images of a single scene from a static location. We hope to draw on numerous techniques learned in the course to develop a method which will be more robust than a simple median filtering method.

We will develop our method using video input, and hopefully adapt it for use with images taken in quick succession from a hand-held camera.

We will create an initial composite of the image using naïve methods. We will use these method to create a map of uncertain areas of the image. Treating these areas as potential holes we will determine the correct pixel from the set of potential pixels based on object removal techniques. By limiting ourselves to a set of known, potential pixels we hope to accurately fill ares which contain complex, or irregular patterns.

We believe using video data will give us the most straightforward way to do this, as the camera information will remain static. However, provided things in the first stage of project work proceed easily, it should be straightforward to modify the image alignment code from the most recent project to allow us to use fewer images taken from slightly different locations.