Abstract

The purpose of this project is to improve the speed of existing stitching algorithms in relation to video stitching. The speed can be increased on the axis of distance by focusing only on the region of image overlap. The speed can be increased on the axis of time by reusing homography information across multiple frames. It may also be possible to combine these approaches to further speed up the stitching process. The result of the project was an image stitcher that worked at an increased speed of 6.5FPS as opposed to 1.5FPS in other approaches. The downside of this approach is a drop in stitching accuracy in relation to other stitching approaches. More work is needed to fully develop a real time video stitcher.

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