

Image 360 using Image Stitching

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Abstract-The merging or stitching of separately captured portions (tiles) of an object into a single unified digital image is becoming increasingly popular in the cultural heritage community. Maps, negatives, tapestries, and paintings that were once too onerous to digitize faithfully because of their physical size are now included in digital collections. These can be digitally sewn together from component images with several post-processing solutions. In some cases, large robotic systems are accomplishing these tasks. When such stitched images are viewed without a known reference image the stitching performance can appear quite remarkable. What and where are the hidden flaws in these stitched objects? Are certain content types more prone to stitching errors than others? Are there analytical tools to detect stitching errors or are visual assessments sufficient? What operational guidelines and software options offer the best stitching solutions? And, as is often the case, do these tools cater to other imaging sectors with quite different sensitivities than those of cultural heritage institutes. We explore these questions and offer an assessment of best current thinking on the pros and cons of different digital stitching solutions

Keywords: Image Stitching, Key points Detection, Warping, Localization, Classification, Segmentation

I. INTRODUCTION

The purpose of developing such an application is that we cannot easily capture a 360- image using a normal camera but with the help of such an application is that we can easily convert multiple images into one 360 image that shows the details of the entire multiple images into one image The scope of such an application is that a common person can easily create 360 images using a collection of multiple images The problem that arises is that we cannot easily get a full view image of various places and historic monuments for example: consider a image of a pillar with 4 sides with the help of a normal camera we can get image of only one side but the advantage of this application is that user can click images of all four sides into four images and upload these images as input and this application will combine these images with the help of image stitching into one 360 image and provides an option for users to download this 360 image.

II. RELATED WORK

There are many applications that provide image stitching tools, but these tools are static in nature i.e user cannot upload his dynamic image but can only download pre stitched image.

III. PROPOSED METHODOLOGY

The proposed methodology consists of three phases:

The Stages in which the working is carried out is as follows:

1. Capture

Capture all kind of different angle photos.

2. Upload

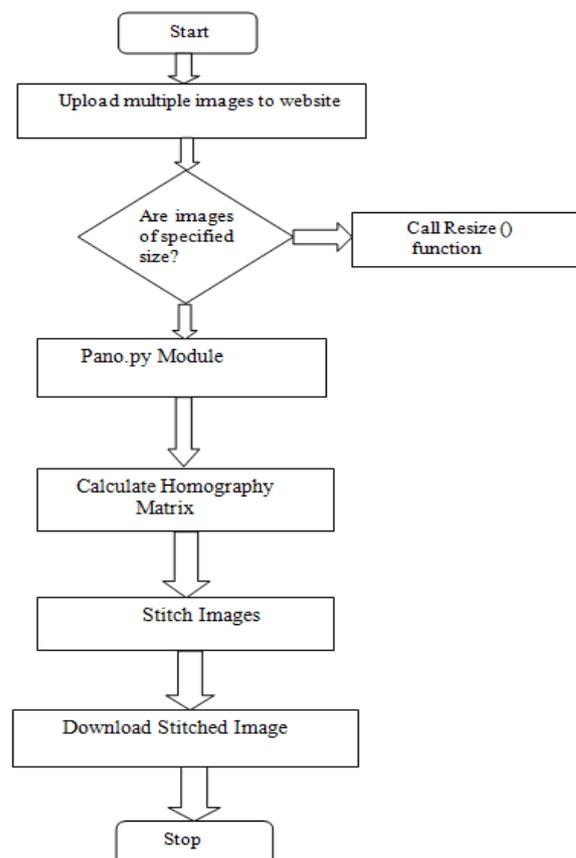
Upload all different angled photos and we will stitch it for you as a single image file

3. Download

The user can easily download the stitched image.

In the proposed methodology user can upload his multiple dynamic images and get respective stitched image and also user can download pre stitched images also.

Flow Chart:



IV. CONCLUSION

The merging or stitching of separately captured images for an object into a single unified digital image is important for the cultural heritage community, especially for affordability. The images are captured with scanners, digital cameras and large robotic systems.

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FUTURE SCOPE

There are many future scopes related to this. There is need of developing algorithm that works efficiently even in very complex background and even if the outline of the text is not clear. Even further this can be extended to the algorithm that converts into many other languages. The proposed work can be extended to work on degraded text or broken characters.

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