NAME

autopanog – Autopano GUI frontend to create a panorama project.

SYNOPSIS

autopanog *[options]*

DESCRIPTION

GUI frontend for the autopano-sift package. It allows the processing of input images to create and match keypoint information, from which a PTO panorama project file can be created.

COMMAND LINE OPTIONS

--output <ptofilepath>

Preset the PTO output filepath in the GUI.

--imagelist <list.txt>

Read input image filepathes from a list file.

--absolute

Enable the use of absolute pathnames in the resulting PTO file.

PARAMETER DESCRIPTION

Source images

The filenames of the image files that will be processed. Using the "Add images" and "Remove selected" buttons, the list can be changed. At least two images must be loaded.

Downscale resolution

The maximum width and height resolution the image is downscaled to. That is, if the image exceeds height or length compared to this value, the image is scaled so its longest side is exactly this number of pixels long. This value is the single most important setting to optimizing memory usage. As a rough guide, use 750 pixels for a 256MB RAM system, 1400 for a 512MB one. Values smaller than 400 here lead to poor matching for most digicam images, due to sparse keypoints.

Save option

There are three choices, "Save keypoints to files", "Save keypoints to files (compressed)" and "Keep keypoints in memory only". The save prefix is used to name the file, followed by the original filename. For the first two available options, XML files are created with the ending ".xml". If the compressed option is selected, the XML files will be stored in compressed **gzip(1)** format. For the last option, the keypoint data is piled up in memory. For systems with low memory, this option should not be choosen, otherwise it speed things up, if the keypoint data is not needed afterwards.

Save prefix

How to name the keypoint files. The keypoint files are saved to the current working directory plus this prefix plus the original filename of each image.

Maximum keypoints per image pair

After all filtering (matching, pairing, join-matches, RANSAC) has taken place, the final keypoints are filtered for the best keypoints. A maximum of the supplied number is kept. If you do care about optimization speed in the panorama layouting, choose a low number. If you do manual work and want the best result, you can safely set this to a high number, such as 20 or more.

Use RANSAC filtration

If enabled, the keypoint matches are filtered using a good geometric model. That means, only matches are kept that "make sense". Although the matches could be correct matches, some matches are unwanted, like the matches moving objects (people, cars, ...) produce. Those are removed as well. It is recommended to leave this option checked except for special lens geometries, such as fisheye lenses.

Use Area filtration

As we only keep a limited number of keypoints (specified in the maximum keypoint option), we have to discard the rest. If this option is checked, the points to discard are choosen in a way that maximizes the area enclosed by the remaining points. It is believed that a large coverage of area within the picture generally leads to better optimization results later. It is recommended to leave

this option checked.

Automatic pre-aligning of images
> This enables a set of options and will cause an image pre-aligning algorithm to kick in. What it does is to estimate the basic image parameters yaw, pitch and rotation based on the individual image overlaps. See the **autopano(1)** manpage for detailed instructions. In general, you need to take the pictures in a specific order (strict left-to-right or strict right-to-left) for the first row of images. It really pays off to learn how to use this option properly, as the nona/PTStitcher optimizers are a lot better on pre-aligned images. Additionally, you can enable automatic horizon line creation, which straightens the panorama.

Input orientation
> Sets how the images were taken. If you have "vanilla" orientation and the first row is taken as normal pictures, just leave "normal" checked. Otherwise you need to tell the program where the bottom is located within the images. The automatic bottom finder only works well on flat-horizon images, so better not use it in case you explicitly know where the bottom is located.

Generate horizon lines
> When pre-alignment is enabled, you can also enable the automatic creation of horizon information. For this to work, the first row of images must have its horizon roughly in the middle of the image. The number of points to create can be given in the combobox, whereas sums of powers of two (6, 14) work best. To create as much horizon lines as possible/meaningful, choose "*".

PTO Output
> The filename of the PTO panorama project file to create.

Use absolute pathnames for image files
> If enabled, absolute filesystem pathnames are used to store the image filenames in the PTO file. Using this option will ensure the PTO file will work from anywhere. However, you can not move the image files to another location afterwards (for example, burning the images on a CD), as the files' pathname change. Disabling this option will result in only the filename being stored in the PTO file.

Output subpixel coordinates
> If enabled, sub-pixel float coordinates are used to describe matches between images in the PTO file. This works with most frontend programs, such as hugin, but old frontend programs may have trouble with this. In this case, try to disable this option.

BUGS

No bugs known, if you find any, please send a bug report to me. I will try to fix it.

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SEE ALSO

autopano-sift(7), **autopano-complete**(1)