

Setup

The code was tested running `Ubuntu 22.04` on both WSL2 and a VMWare Virtual Machine, and using `OpenCV 4.5.4`.

To compile the code, simply run the following line from a terminal in the project's root folder:

```
mkdir build && cd build && cmake .. && make
```

Examples

The first example focuses on overlaying the patch, which is a static image, on a sample video:

```
./basicar ../data/original.jpg ../data/video.mp4 --patch=../data/patch.jpg
```

The second example is very similar, but the overlayed asset is another video:

```
./basicar ../data/original.jpg ../data/video.mp4 --patch=../data/patch.jpg --  
video2=../data/video2.mp4
```

Features

- Pressing `S` while running the project will save a screenshot into `src/build/data/screenshots`. The exact name and path will also be logged in the console.
- Pressing `Esc` or `Q` while running the project will terminate its execution.
- When the execution ends, the rendered video can be found in `src/build/data/output.avi`.

Specifying descriptors to use

The solution accepts specifying different descriptors:

- SIFT (default)
- ORB
- BRISK
- AKAZE
- KAZE

To specify a descriptor, pass the argument using `--desc=<descriptor-to-use>`, for example:

```
./basicar ../data/original.jpg ../data/video.mp4 --patch=../data/patch.jpg --  
video2=../data/video2.mp4 --desc=brisk
```

The `desc` argument is case-insensitive and if none or an empty one is provided, the code will run using SIFT.