

Progress Summary

29.4.2020

Today's objective, was to run "dso_ros" while in live mode. Until now, I have recorded the videos using the code I wrote with the UEYE interface while the camera is plugged in my laptop. And then transferred the images folder and times.txt file to the Gigabyte computer.

First, I tried to check if it worked without any additions, by running the command:

```
roslaunch dso_ros dso_live image:=/camera/image_raw  
calib=/home/yoni4/Desktop/DSO/Dataset/home_sweep/camera.txt  
gamma=/home/yoni4/Desktop/DSO/Dataset/home_sweep/pcalib.txt  
vignette=/home/yoni4/Desktop/DSO/Dataset/home_sweep/vignette.png
```

Unfortunately, it did not, so I installed a ROS package called "usb_cam" which supposedly should publish the live feed to "usb_cam/image_raw" topic, but it did not work neither. The reason is, it couldn't find /dev/video0, because we are using an IDS camera, which uses different system.

In order to solve this problem, I installed the "ueye_cam" ROS package in the "home/catkin_ws" directory by cloning the following GitHub repo:

https://github.com/angixu/ueye_cam

into "catkin_ws/src" and then ran the following commands (while in catkin_ws directory):

- "catkin_make"
- "source devel/setup.bash"

Afterwards, I ran the following command:

- roslaunch ueye_cam rgb8.launch

Which published to the "/camera/image_raw" topic, the live feed of the camera. And finally, I ran "dso_ros" again and it worked!

However, "rgb8.launch" file, contained their own configuration. So naturally, I made my own launch file called "dso.launch", and changed the parameters to our configuration and ran the "dso_ros" again, and it WORKED!

Keep in mind, this is not the ideal implementation to the “dso.launch” file. Instead of changing each parameter, ideally, we want to load the configuration from a parameter set file. This is possible through the “ueye_cam” package, but for some reason it did not work when I tried (there were no errors, it just didn’t change the parameters).

And that is my plan for tomorrow, to find out what’s in their code is overwriting the parameter set file.