Sky Imager Aggregator Documentation for Admin/User

Short description of the system as a whole

The RaspberryPi is connected to the camera true an Ethernet cable. The purpose of this system is to accesses the camera to take a picture every 10 seconds. Once the photo is taken a mask is applied to cover the surrounding objects. When this process is finished the software accesses the server and sends the photo.

Minimum HW requirement

- RaspberryPi 3 Model B+
- Noobs microSD
- Power supply 2.5A 5.1V
- Ethernet cable
- camera

Library and SW

The RaspberryPi works on Debian operating system which is a Linux based system. For use of this code you will need python 3.5 and python 2 as well.
OpenCV library is needed as well, which you can install by following this link:
https://www.pyimagesearch.com/2018/09/26/install-opencv-4-on-your-raspberry-pi/a
You will also need the following libraries:

- numpy
- subrpocess
- datetime
- http
- os
- sys
- time
- json
- base64
- copy
- configparser

And to control the program we use supervisor service.

Installation and use

Using the code is pretty simple and can be done in two steps:

1. You need to download the repository from github
2. Change supervisor service configuration file by adding the two scripts to supervisord.conf like so:

```
[program: split]
directory = /home/pi/code
command = python3 split.py
startsecs = 10
nodaemon = false
autostart = true
autorestart = true
```

This is to be done for SendStorage.py the same way. For more information about supervisor read the instruction manuel.