TSM Face Detection System Manual

Implementation Info

All the versions of the TSM algorithm (except v1.3) are implemented using the default patches described in the main documentation file (folder /documentation). The alternative patches are not included in any of the versions.

Build & Run

Export the containing files and folder in a directory of your choice. Run the command shell inside the directory and execute the command (there is a makefile in the directory).

- *make all*

The output file that is created is named myFaceDetector. The models and settings files are saved in "models/" folder. There are some sample images in the "images/" folder. Run the command

- *./myFaceDetector [image_path] [model_path] [settings_path]*

Settings Info

The settings file of the TSM Face Detection System contains the following options

1. **Threshold**: The default value used by the creators is -0.65. See the full documentation chapter 9.1. This option reacts with the NMSLimit one (see chapter 9.1)

2. **BoxCacheSize**: The default value is 200. For the v1.3 of the system the recommended value is 10,000. See the full documentation chapter 7.2

3. **NMSLimit**: The default value is 60. For the v1.3 of the system the recommended value is 3,000. See the full documentation chapter 9.1. This option reacts with the threshold one (see chapter 9.1)

4. **NMSOverlap**: The default value is 0.3. See the full documentation chapter 5.10.

5. **Interval**: The default value is 5. See the full documentation chapter 5.3 and 9.3.

6. **MinLevel**: The default value is 0 (disabled). See the full documentation chapter 9.4.

7. **MaxLevel**: The default value is 0 (disabled). See the full documentation chapter 9.4.

8. **doublePrecision**: The default value is 5. Defines the number of decimal digits in the xml output file.

9. **faceHeight**: The default value is 100. Use 50 for the face_p146. See the full documentation chapter 7.1.

10. **findBuffer**: The default value is 100. See the full documentation chapter 6.13.1.

11. **Version**: (Unavailable in C Implementation) The default value is 3 (v3.2.2). Use value 2 for the v2.2.2. See the full documentation chapter 6.5.

12. **OutPutType**: The default value is 4. Change the xml object value to:

- **xx1** (binary) for export the results in XML file (decimal ex. 1,3,5,7)

- **x1x** (binary) for export the results in image file (decimal ex 2,3,6,7)

- **1xx** (binary) for export the results visually in the screen (decimal ex 4,5,6,7)