FexFacetUtil: Manual
Text

FexFacetUtil is a Matlab (www.mathworks.com) toolbox that wraps some of the functionalities of the Emotient SDK (http://www.emotient.com), and it is included in "FexMetrica" (Filippo Rossi, www.github.com).

Requirements

In order to run *FexFacetUtil* you need to have Matlab installed on your computer. The program works only on Linux (tested on Ubuntu 12.04). Additionally, the Emotient SDK needs to be already installed alongside OpenCV (as indicated in the Emotient SDK manual).

Installation

In order to install *FexFacetUtil* on Linux you need to follow these four steps:

(1) In the *fexfacetutil/cppdir* directory, modify the config.hpp file, and enter the full path to the *facet* subdirectory of the Emotient SDK.
(2) In the *fexfacetutil/cppdir* directory modify CMakeList.txt: enter the full path to the Emotient SDK where required.
(3) From a terminal, go in the *fexfacetutil* directory and type:

```
>> chmod +x install.sh
```

(4) From the same directory, type:

```
>> sh install.sh
```

This will create a *bin* directory within the *cppdir*, which contains the executable .cpp files used to process a set of frames with the Emotient SDK.

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Example

FexfacetUtil generates a preprocessing object and process the video using the Emotient SDK. The pipeline for these operations is listed below:

(1) Select the files you want to process, a directory for the output, and the features you need out of a video file (e.g. action units) [**fex_ppo2.m**];
(2) Generate the preprocessing object (**PpObjs**) according to parameters indicated above [**fex_ppo2.m**];
(3) Specify how you want to partition videos into frames [**PpObjs.video2frame()**].
(4) Execute preprocessing actions [**PpObjs.step()**].

```
>> clear all
>> addpath(genpath(pwd));
>>
>> PpObj = fex_ppo2;
>> PpObj(1).step();
```

More example are provided in the file “fexfacet_example.m.”