

1. Additional notes for part A annotation:
  - a) There are two versions of Part A annotation.
    - i. In the initial version, i.e., the first version, the apex frame of the first AU of all AUs with overlap is taken as the apex frame of the facial expression. Besides, due to the algorithm problem, there is a situation where some micro-expressions apex or offset is bigger than onset (CAS(ME)3\_part\_A\_wrongly\_labeled\_me\_in\_V1.xlsx).
    - ii. In the second version, the apex frame of micro-expressions is calculated according to the average of the apex frames of all overlapping region AUs.  
 In CAS(EM)<sup>3</sup>, micro-expressions are defined as apex-onset<250ms or offset-onset<500ms. Hence, compared with 943 micro-expressions in Version 1 (reported in [1]), the number of micro-expressions in the second version is reduced to 860.
  - b) Annotation table name explanation:
    - i. cas(me)3\_ME\_label\_JpgIndex -> Annotation file for micro-expression, with onset, apex, offset, action unit combination, emotion classification and objective classification.
    - ii. cas(me)3 -> Annotation file for all facial expressions, including onset, apex, offset, action unit combination, and objective classification.
  - c) The frames in the Part A annotation file correspond to the image file names.
  - d) The emotion annotation of the macro expressions for part A is still in progress and will be released to applicants as soon as it is completed.
  - e) The objective classification of labeling refers to this article [2].
2. Unlike Part A, the frame annotation in Part C is based on the order of the images in the folder, rather than the file name of that image.
3. Due to the depth camera settings, some points that are considered outliers by the camera are treated as zero values.

Reference:

- [1] Li, J., Dong, Z., Lu, S., Wang, S. J., Yan, W. J., Ma, Y., ... & Fu, X. (2022). CAS (ME)3: A Third Generation Facial Spontaneous Micro-Expression Database with Depth Information and High Ecological Validity. *IEEE Transactions on Pattern Analysis and Machine Intelligence*.
- [2] Davison, A. K., Merghani, W., & Yap, M. H. (2018). Objective classes for micro-facial expression recognition. *Journal of imaging*, 4(10), 119.