

Technical Manual

(Version 1.1)

for

Tracking Annotation Generator (ver 1.1) TAG 1.1

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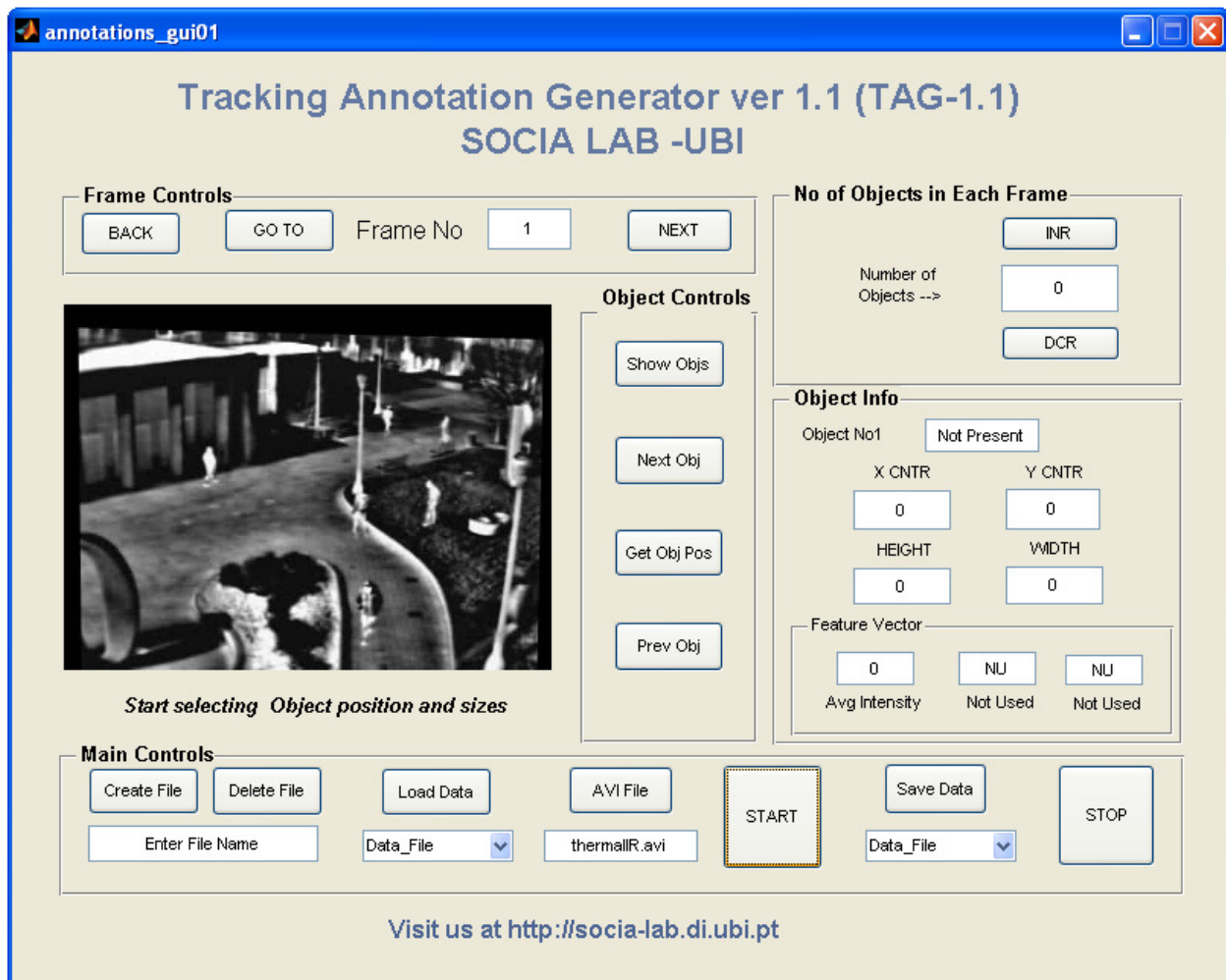
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Annotation Generator Tool, TAG 1.1: Manual ver1.1

There has been so much research work in tracking. Every author has tried to convince the advantages with respective algorithms. However, the analysis of performance of these algorithms has sometimes been done in a subjective way by giving qualitative presentation, which has a drawback of being biased. This situation prompts to have standardized and quantitative analysis method in the field of object tracking research. The simplest method of having quantitative measurement of performance of algorithm is to see the difference between and algorithm output and ground truth data. The generating ground truth data with video is very time consuming and tiresome. The complete automation of this process is not possible but using software with GUI, partial work can be automated. Annotation Generator Tool (TAG 1.1) is the step towards making the ground truth data generation procedure automatically except the manual selection of object in video by using mouse pointer to have bounded rectangle around object. This GUI tool can be used to generate the annotations of an object present in the frame in terms of its location size or area and a feature vector associated with it.

This manual is aimed at the presenting description of various functioning and GUI components, present in the initial version of TAG. We expect more features and solution to bugs found in this version will be introduced in next version. A screenshots of GUI snapshot is given below.



Main Controls:

This panel has following components:

- *Create File*
- *Delete File*
- *Enter File Name*
- *Load Data*
- *Data_File (Load)*
- *thermalIR.avi*
- *START*
- *Save Data*
- *Data_File (Save)*
- *STOP*

Create File-Delete File-Enter File Name:

- This group of components is used to create new file, to load annotated data from or to save annotated data to. To create new file name, enter file name in edit box of '*Enter File Name*' and click on '*Create File*'. This newly created file name will be appended in the pull-down list of '*Data_File*' (load and save, both). To delete any file name from this pull-down list, enter file name in edit box of '*Enter File Name*' and click on '*Delete File*'

Load Data-Data_File (Load):

- The desired annotated data file can be selected from pull-down list of '*Data_File (Load)*'. To load this selected file for data generation, click on '*Load Data*'

thermalIR.avi

- In this edit box, the avi video file name can be entered. Default file name will be '*thermalIR.avi*'

START

- This push button is to load the video file to start to annotation of frames.

Save Data

- After doing ground truth annotation, to save those changes permanently in annotated data file, click on '*Save Data*'. This will save current status of annotated data in the file selected in pull-down list of '*Data_File (Save)*'.

Data_File (Save)

- Select the file name where current annotated data is to be stored , from the pull-down list of '*Data_File (Save)*'

STOP

- The function of this pushbutton is same as that of '*Save Data*'. Additionally, clicking '*STOP*' makes GUI closed.

Frame Controls:

This panel has following components:

- *BACK*
- *GO TO*
- *Frame No*
- *NEXT*

Back/Next

- These Push buttons are to go to previous frame and next frame , respectively

GO TO- Frame No

- To go to specific frame , enter the desired frame number in edit box of *Frame No* and click on *GO TO* frame

Object Controls:

This panel has following components:

- *Show Obj*
- *Next Obj*
- *Get Obj Pos*
- *Prev Obj*

Show Obj

- Clicking this pushbutton will show the object location with bounded rectangle in green as per the annotations done for that frame. *Show Obj* is very useful to verify if the object is been annotated or not.

Next Obj

- Clicking on this pushbutton, advances the objet number of object to be displayed in Object Info panel.

Get Obj Pos

- Clicking on this pushbutton, makes user to select the object from current frame as bounded rectangle. The information of bounded rectangle like its center, height and width will be displayed in Object info panel. This version will also display the average intensity in object info panel.

Prev Obj

- Clicking on this pushbutton, takes previous objet number of object to be displayed in Object Info panel.

Object Info:

This panel has following components:

- *Object No*
- *Present/Not Present*
- *X CNTR*
- *Y CNTR*
- *HEIGHT*
- *WIDTH*
- *Feature Vector*

Object No

- Along with Object No, text of number of object will be appended, such that others edit boxes will show the information about this object no.

Present/Not Present

- This edit box will show either present or not present the object. By default, it shows the status 'Not Present' till object is selected from frame. When this shows the status 'Present' and user want to change this status to 'Not Present', edit Present such that there will be no Present. E.g. Edit 'Present' to 'Presen' by deleting the 't' and click out of the box , it will become 'Not Present' showing other parameters zero.

X CNTR

- This edit box shows the X-coordinate for center of rectangle selected by mouse.

Y CNTR

- This edit box shows the Y-coordinate for center of rectangle selected by mouse

HEIGHT

- This edit box display the height of rectangle selected by mouse

WIDTH

- This edit box display the width of rectangle selected by mouse

Feature Vector

- This panel has three edit boxes
 1. Avg Intensity : It gives average intensity of all pixels from rectangle selected by mouse
 2. Not Used in this version
 3. Not Used in this version

No of Objects in Each Frame:

- Not meaning full and non-effective in this version

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