

## The Python implementation of the Scanpath Trend Analysis (STA) algorithm with the Tolerance Level Parameter

In order to run the STA algorithm, you need to follow the instructions below:

1. Python 2.7 should be installed on your computer. The installation file can be downloaded from the Python page <<https://www.python.org/download/releases/2.7/>>
2. You need to open the Python implementation of the STA algorithm, namely **STA.py**, and provide the following parameters.

Parameter	Explanation
SegmentationPath	The link for the segmentation file without the .txt extension. See an example file <b>Segmentation.txt</b> that includes the visual element name, its x coordinate, its width, its y coordinate, its height and its short name respectively for each visual element
EyeTrackingURL	The link for the related page
EyeTrackingPath	The link for the folder that includes eye tracking data for each participant. See an example folder <b>EyeTrackingData</b>
pList	The list of participant IDs, such as [1, 2, 3, 4, 5, 6, 7, 8, 9, 10]
degreeOfAccuracy	The degree of accuracy of an eye tracker, such as 0.5
distanceBetweenEyeTrackerAndParticipants	The distance between the eye tracker and the participants in centimetres, such as 60
resolutionOfScreenX	The X resolution of the screen, such as 1280
resolutionOfScreenY	The Y resolution of the screen, such as 1024
sizeOfScreen	The size of the screen in inches, such as 17
toleranceLevel	It should be between 0 and 1 [0.00, 0.01, 0.02 ... 1.00]. Default value is 1.00
highestFidelity	True or False. It should be True if you want the STA algorithm to find an appropriate tolerance level for achieving the highest fidelity to individual scanpaths based on the input.

3. Once you provide the parameters, you can run the STA algorithm.

If you have any questions regarding to the implementation, please contact me via email <[seraslan@metu.edu.tr](mailto:seraslan@metu.edu.tr)>