Clustering Tool

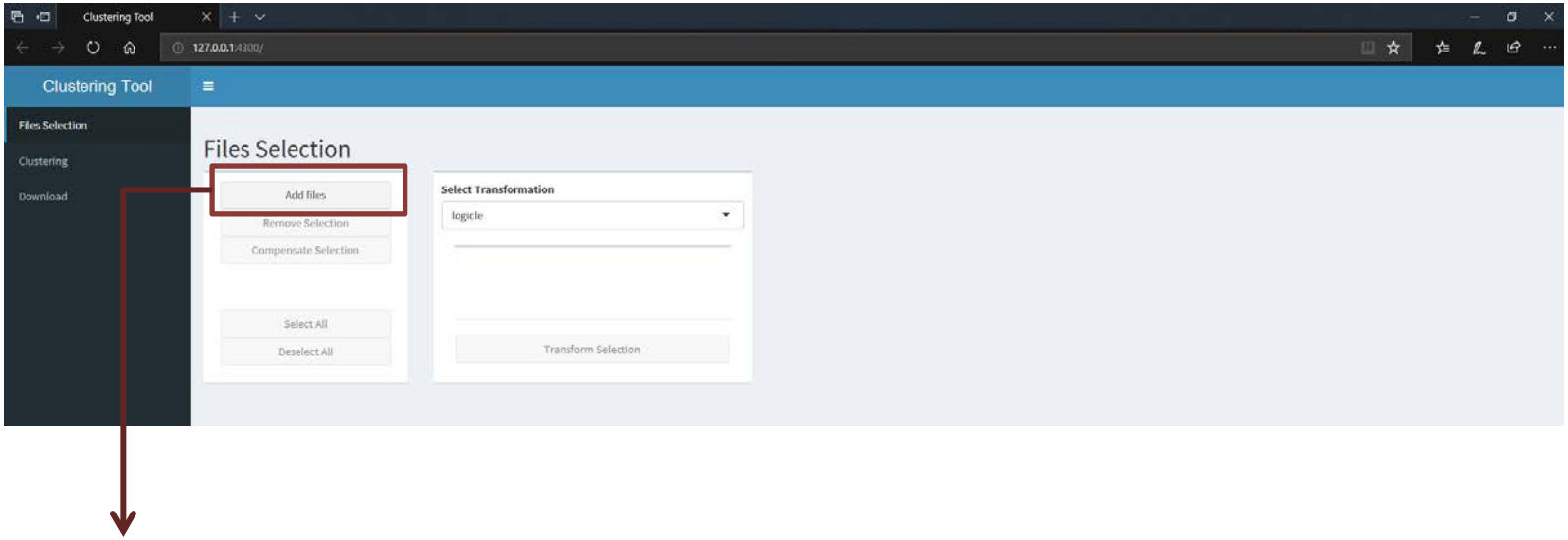
Manual

Isam BEN SOLTANE

Files Selection Tab

Files Selection Tab

Files Selection, Markers Selection, Downsampling, Compensation, Transformation

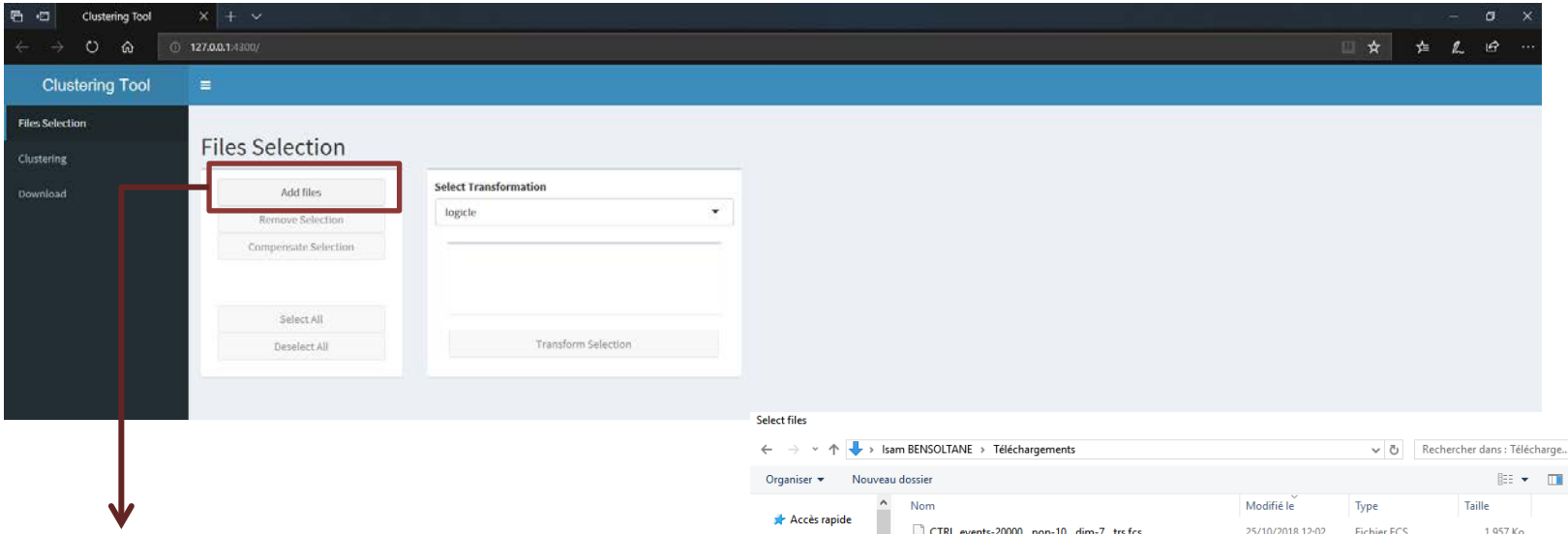


Files Selection Button**:** Select files on local machine

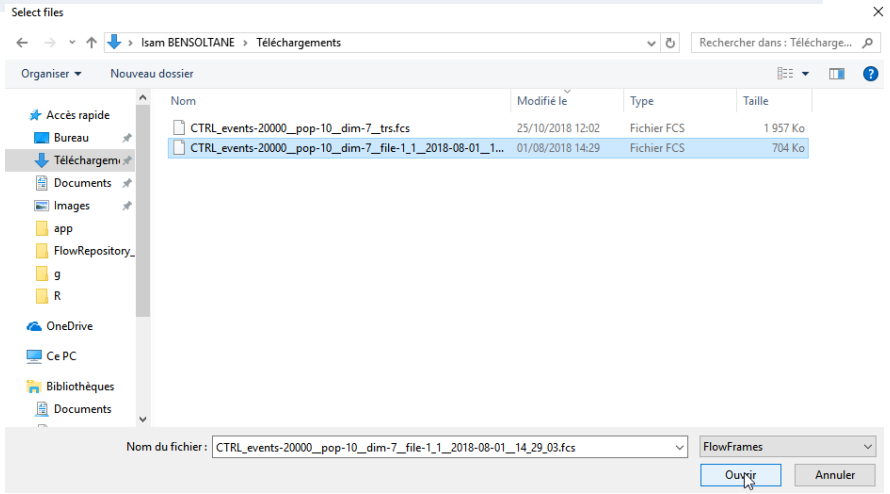
Files Selection Tab

Files Selection Tab

Files Selection, Markers Selection, Downsampling, Compensation, Transformation



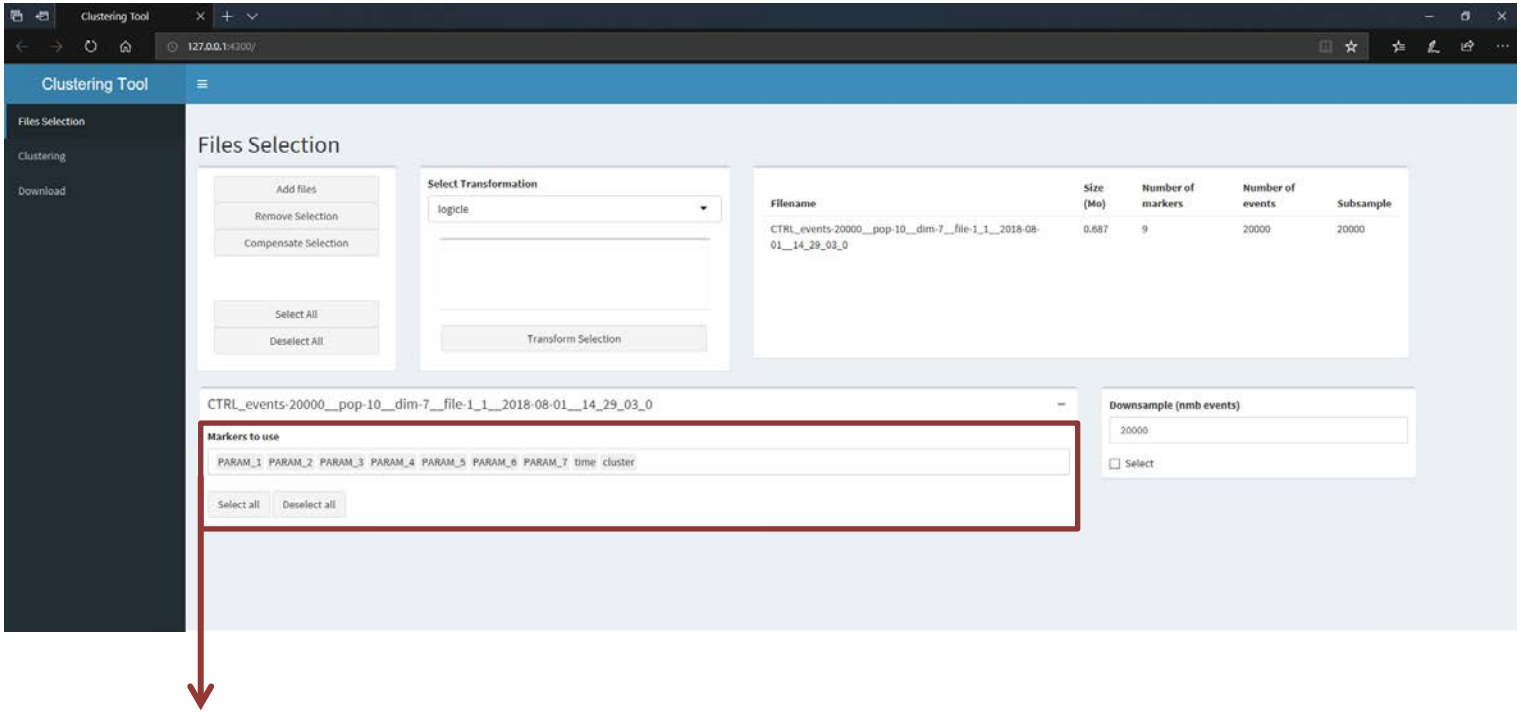
Files Selection Button: Select files on local machine



Files Selection Tab

Files Selection Tab

Files Selection, **Markers Selection, Downsampling**, Compensation, Transformation



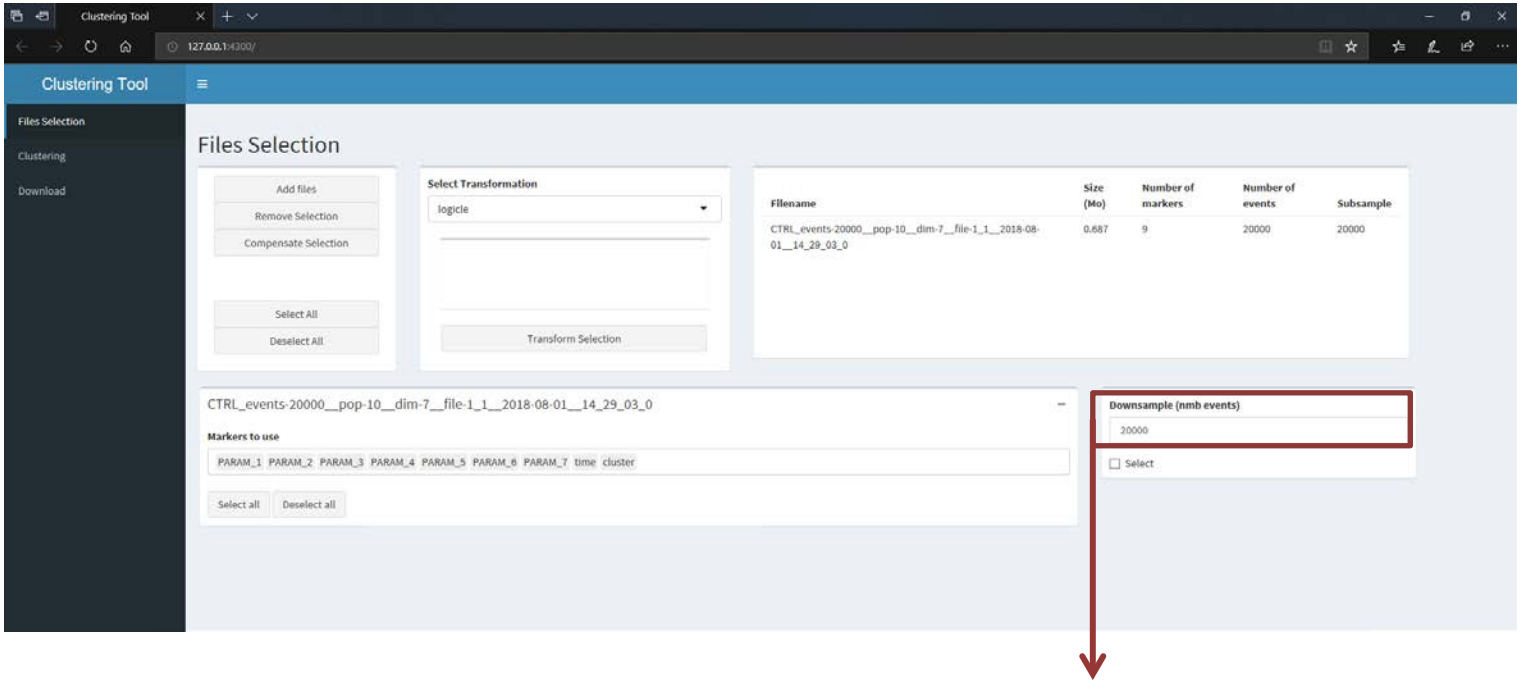
Select the markers to use for Compensation, Transformation & Clustering:

- Individually (list)
- **Select/Deselect all** buttons

Files Selection Tab

Files Selection Tab

Files Selection, **Markers Selection, Downsampling**, Compensation, Transformation



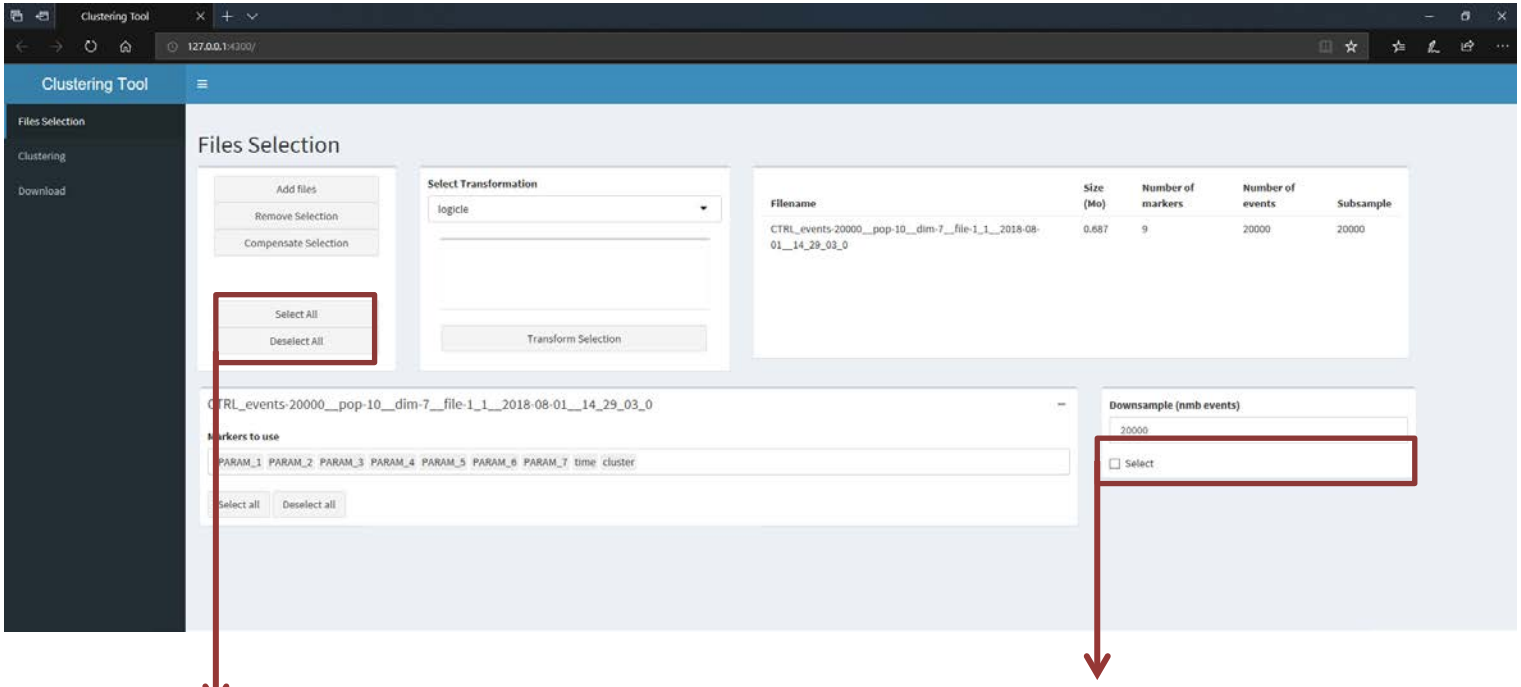
Choose the number of events to use when clustering:

- By default: all the events within the file
- If downsampled, the output fcs contains only the selected events

Files Selection Tab

Files Selection Tab

Files Selection, **Markers Selection, Downsampling**, Compensation, Transformation



Select the file for Compensation or Transformation:

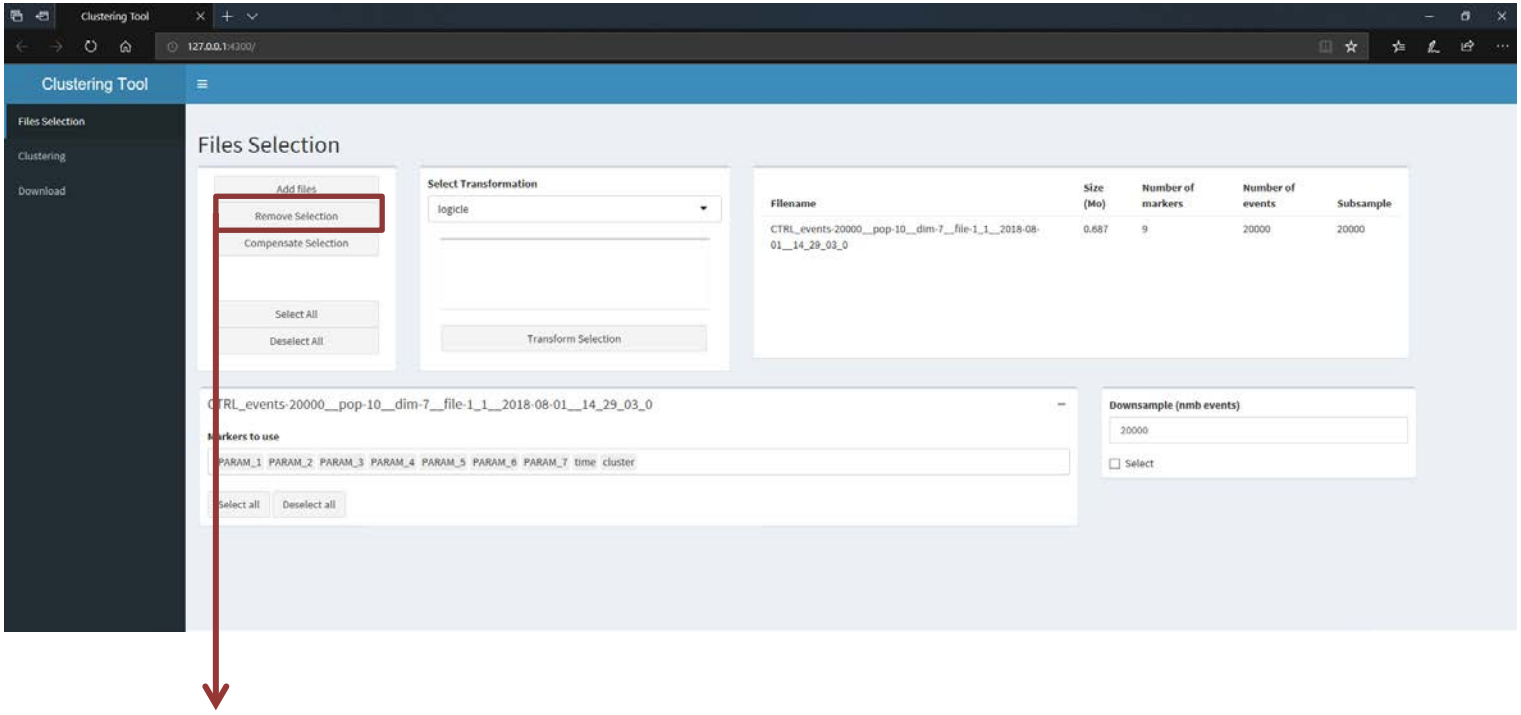
- Individually (checkbox)
- **Select/Deselect all** buttons

ALL THE FILES ARE USED IN THE CLUSTERING TAB

Files Selection Tab

Files Selection Tab

Files Selection, **Markers Selection, Downsampling**, Compensation, Transformation

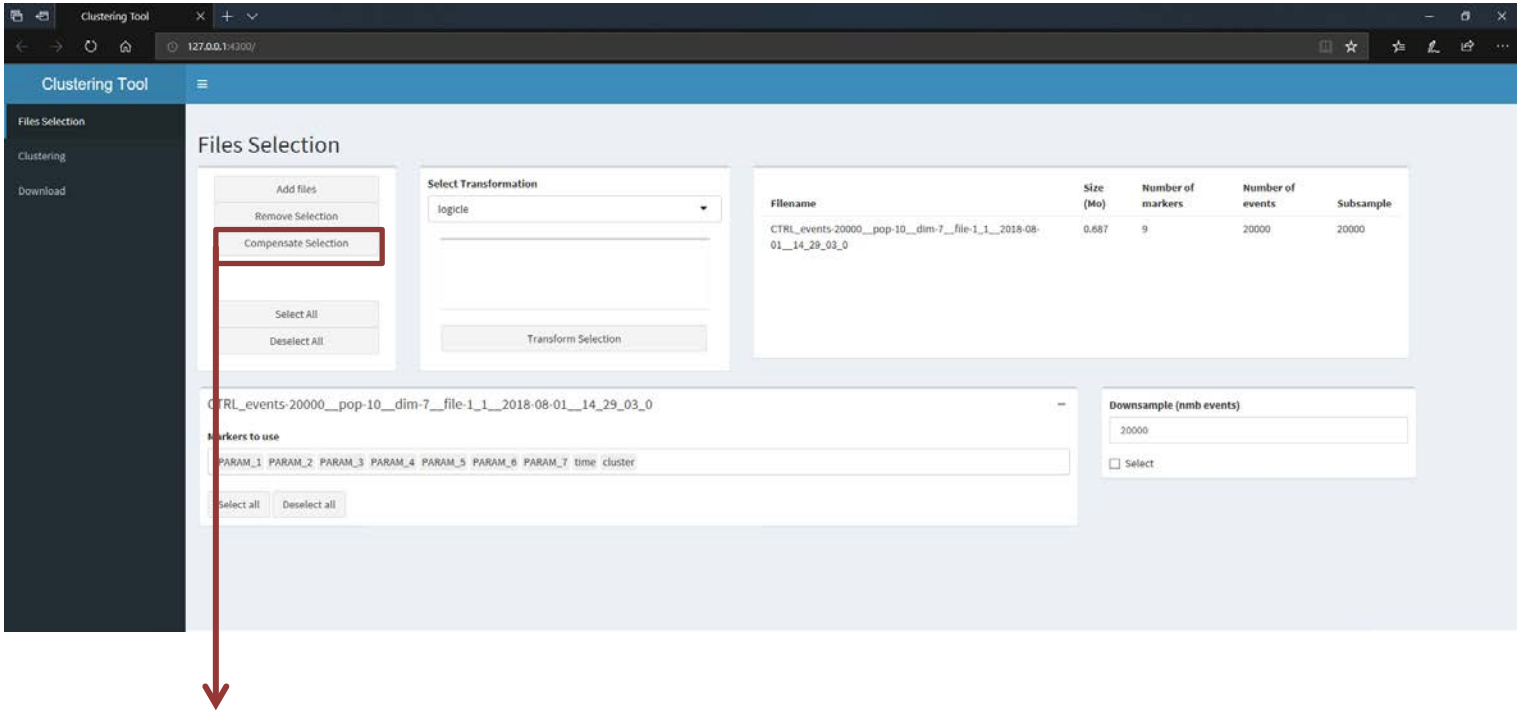


Remove Selection Button: Remove the selected files

Files Selection Tab

Files Selection Tab

Files Selection, Markers Selection, Downsampling, **Compensation,** Transformation

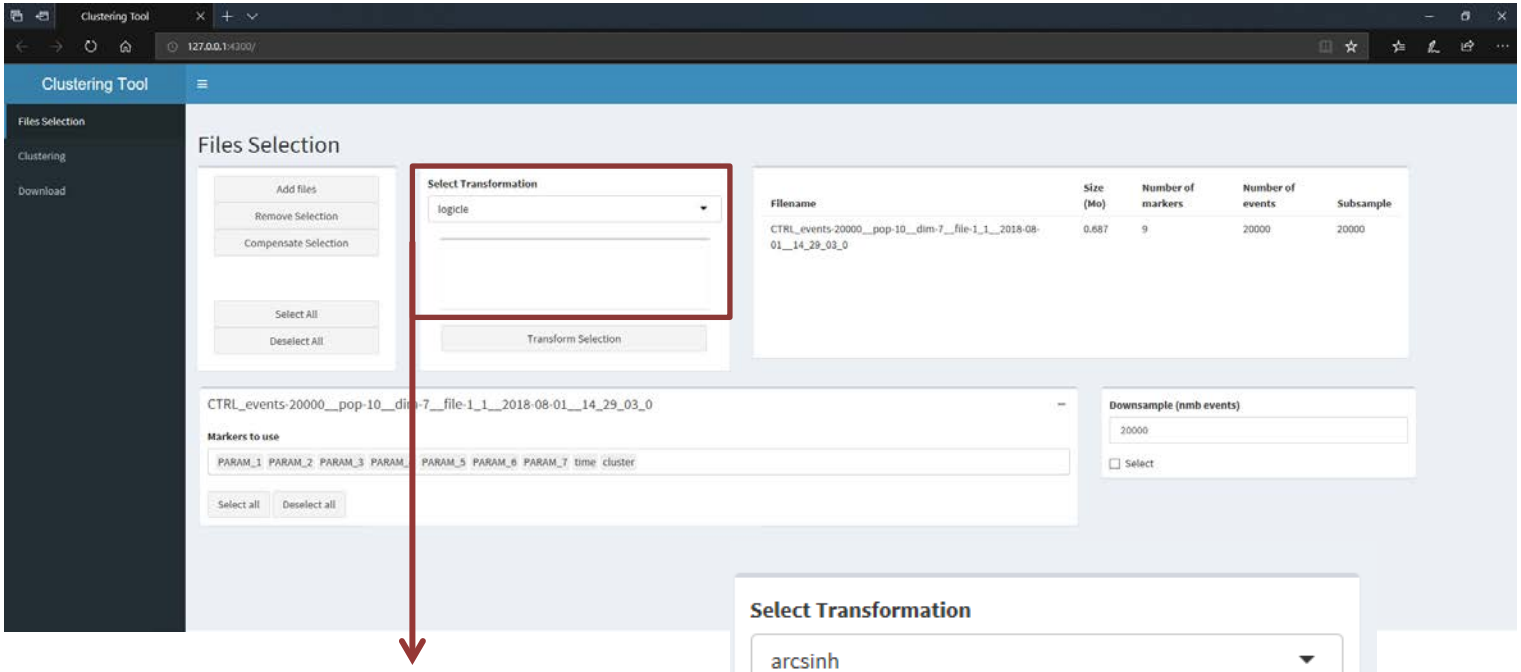


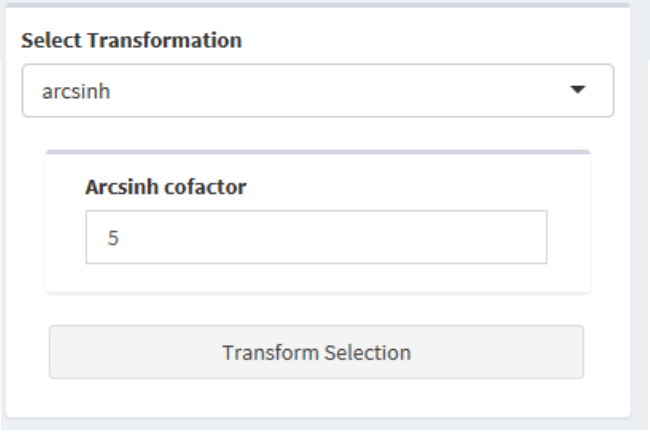
Compensate Selection Button: Compensate the selected files (if possible)

Files Selection Tab

Files Selection Tab

Files Selection, Markers Selection, Downsampling, Compensation, **Transformation**





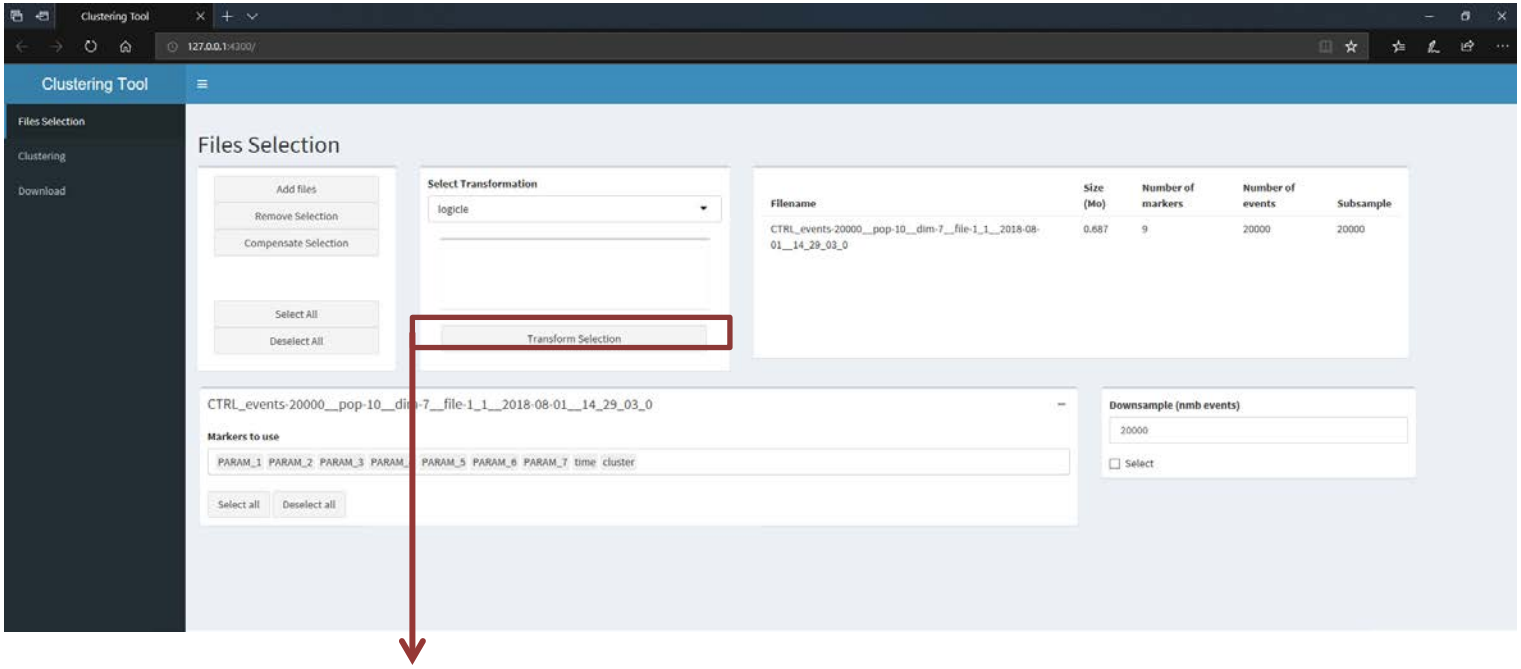
Select Transformation:

- Logicle (no parameters)
- Arcsinh (cofactor)

Files Selection Tab

Files Selection Tab

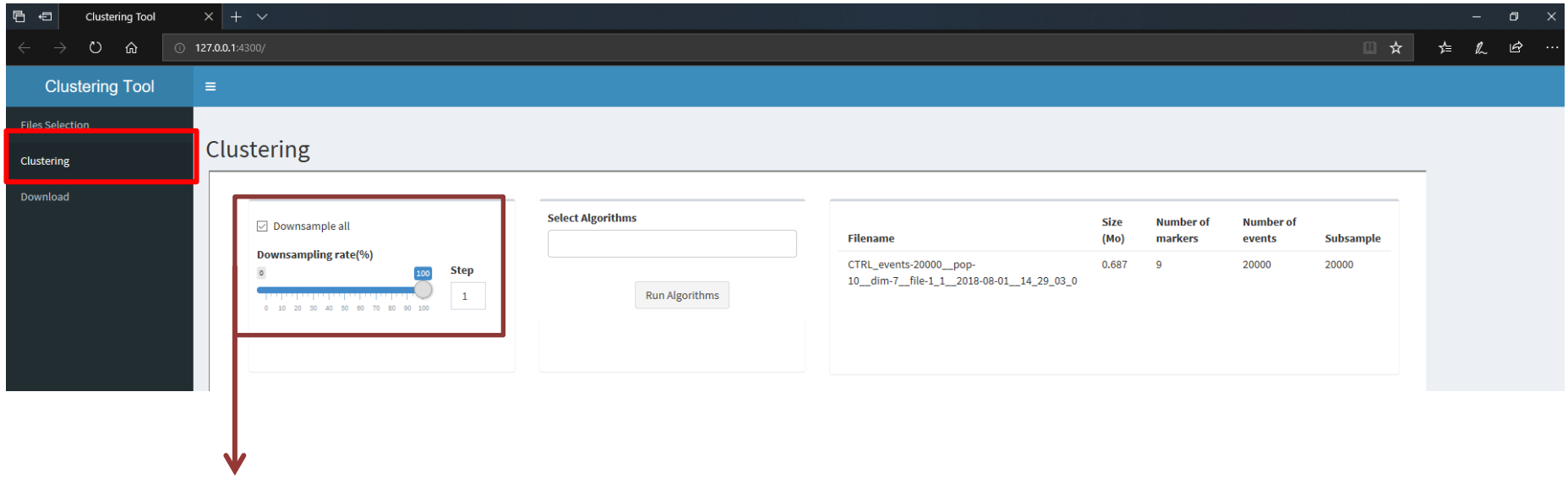
Files Selection, Markers Selection, Downsampling, Compensation**, Transformation**



Transform Selection Button

Clustering Tab

Clustering Tab

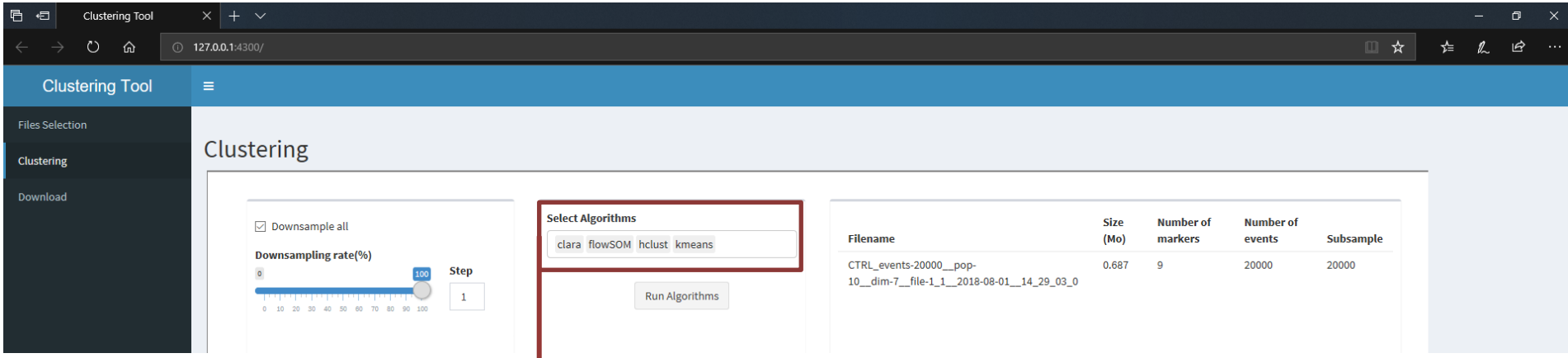


Downsample all checkbox :

- Checked: Use the selected downsampling rate on all files (% of the events of each file)
- Unchecked: Use the individual downsampling rate chosen in the *Files Selection Tab*

Clustering Tab

Clustering Tab



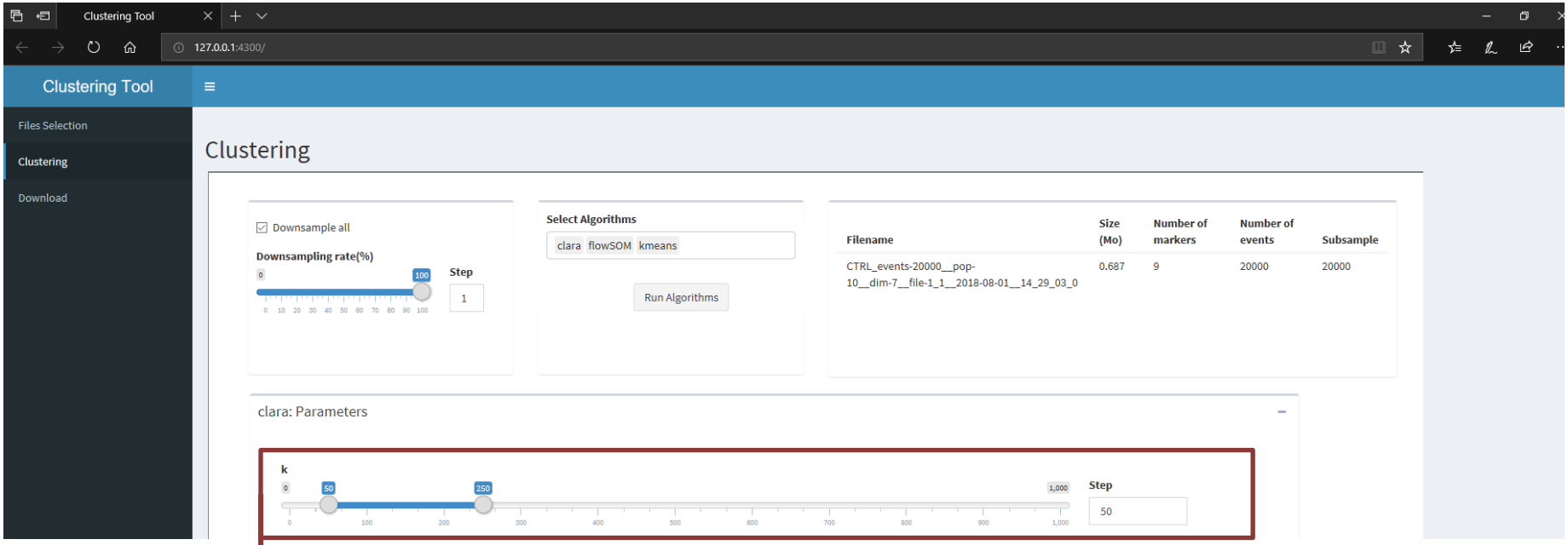
Select Algorithms:

Currently:

- Clara
- flowSOM
- Hclust LESS THAN 40 000 EVENTS ONLY
- Kmeans

Clustering Tab

Clustering Tab



For each algorithm, select the range of values for all parameters:

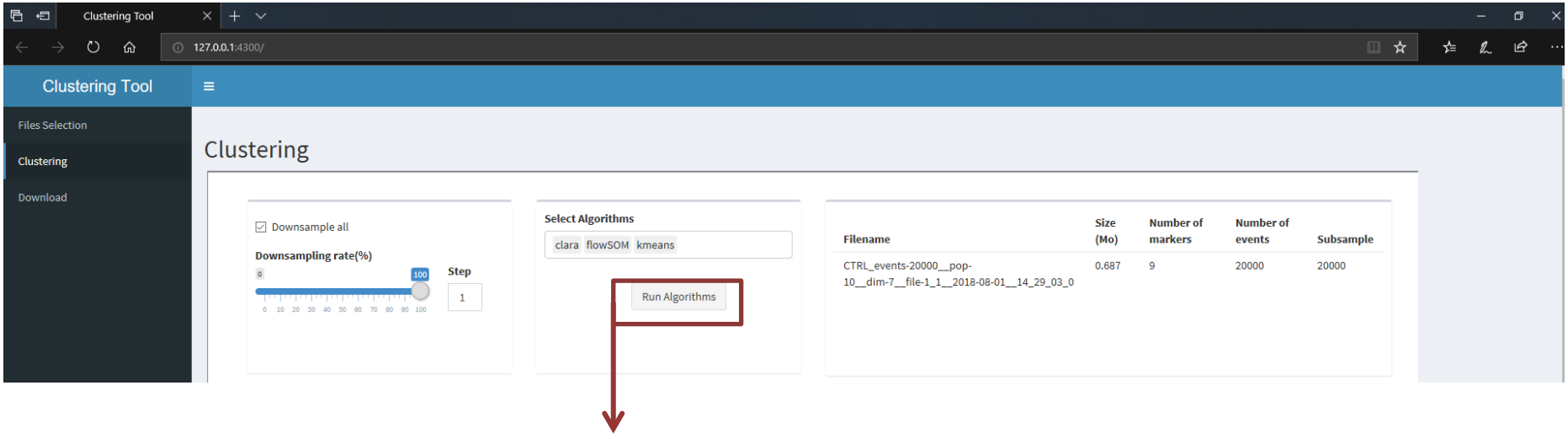
- Sliders: Min and Max values for the parameters
- Step: Values step between 2 runs

eg: Min=50, Max=150, STEP=50

➔ K = 50,100,150

Clustering Tab

Clustering Tab



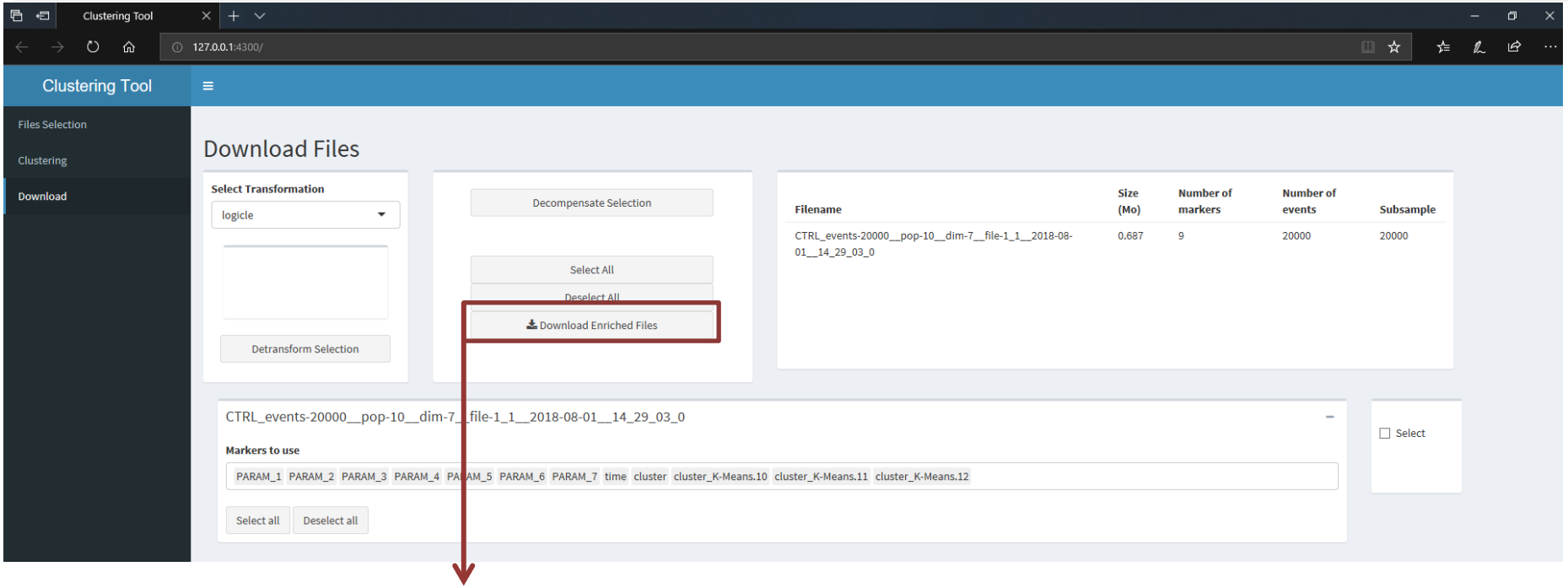
Run the algorithms with the combinations of all the chosen values

Eg: K-means centers=(50,100,150), Iterations=(1000,1100,1200)

➔ Runs:

k	Iterations
50	1000
100	1000
150	1000
50	1100
100	1100
…	…

Download Tab



Download all the generated fcs: original fcs + clustering columns added

!! Reverse Transformation, Decompensate FIRST!!