

C₂toSwarm

THE HIGH-SPEED ALGORITHM PROCESSING ENGINE



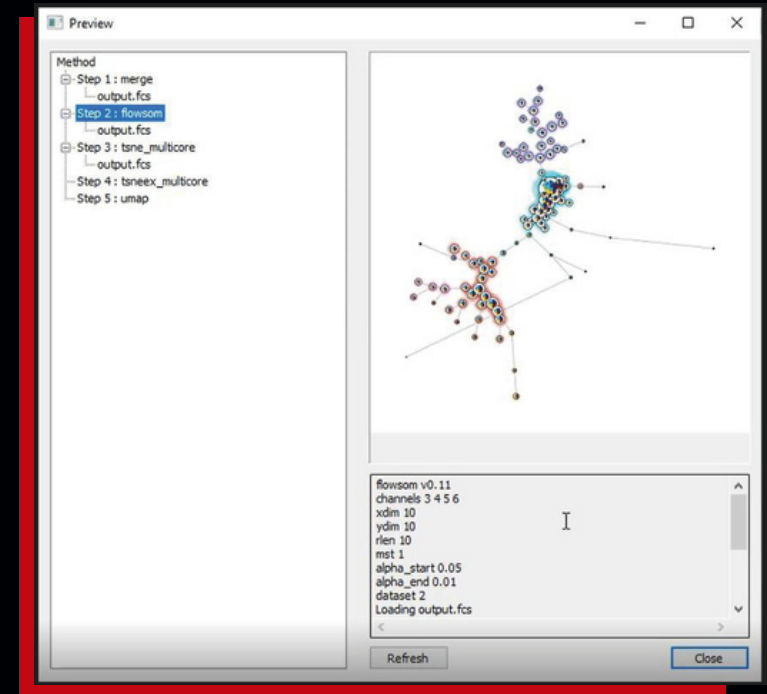
Flow cytometry data is complex at the best of times, but with the increase in parameters that can be acquired together, it is time for a shake-up in flow cytometry analysis.

Moving forwards, there needs to be a bridge in the gap between conventional data analysis and algorithm based multidimensional data analysis which people are turning to in order to make sense of the vast amount of data they are collecting, the downfall here is that multidimensional analysis can be slow and in some cases labor intensive, and this is where CytoSwarm comes in...

CytoSwarm is a cloud-based algorithm engine which allows you to create and process multiple files through multiple clustering algorithms.

CytoSwarm can do for you...

- The software is easy to install and use with step by step setup process.
- Cloud based data processing so no slowing your local computer down.
- Sequentially process your files through multiple algorithms.
- Merge, FlowSOM, t-SNE, uMAP and other algorithms available.
- No need to learn R or have R installed on your computer.
- Output FCS files include the appended parameters from the algorithm analyses, which can be uploaded to your **VenturiOne** workspace.



Further analysis of files

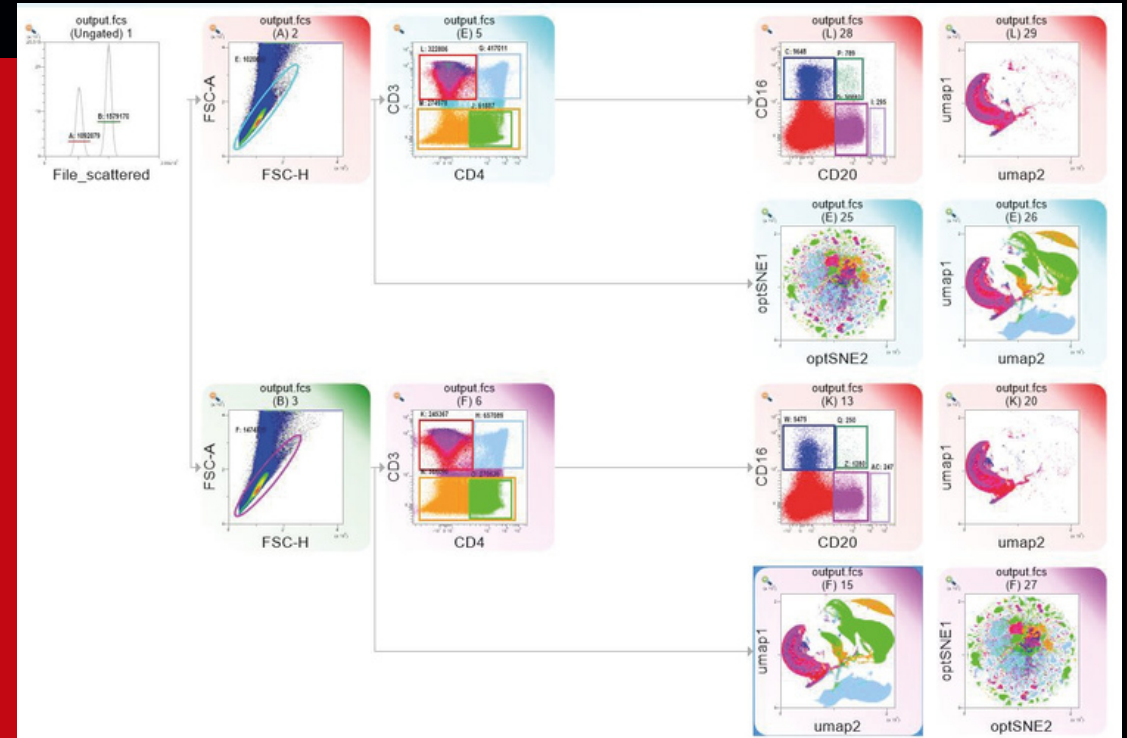
The output files from CytoSwarm contain the extra appended parameters that were created from the algorithm analyses. Upload these file into **VenturiOne** to compare all the different parameters at once.

The benefits of further analysis:

- Being able to analyze parameters side by side allows you to visualize data between the different algorithms in comparison to the original data.
- Gating on universally known populations then applying these gates to the algorithm parameters will instantly show you where these populations reside within the plot.
- Gaining a clearer understanding of the new data.
- Highlighting relationships between the clusters that may not have been clear before.
- Highlighting clusters that are not populations on the original data but have some clear similarities using the clustering algorithms which could lead to breakthroughs in research.
- The ability to gate the cluster data further to really differentiate the data and find the previously unfound correlations that may lead to new paths of discovery.
- Having the ability to differentiate the merged datasets to see if anomalies or unclassified clusters could be drilled down to a single file, possible patient trait, erroneous set up, or a truly unique cluster which can be investigated further.

Cytoswarm enables fast and easy clustering away from your own PC in the secure Amazon Web Servers to minimize time wasted for you and maximize the capacity needed to process the files fast.

Patented multicore processing techniques deliver high speed performance even on extremely large data files and simplicity of use giving you the ability to explore the true potential of your data.



Together they provide you with the complete solution for your high dimensional data analysis.



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