

FlowSOM FlowJo plugin

Introduction

- FlowSOM is a state of the art (see recent [review](#)) clustering and visualization technique, which analyzes flow or mass cytometry data using self-organizing maps. With two-level clustering and star charts, the algorithm helps to obtain a clear overview of how all markers are behaving on all cells, and to detect subsets that might be missed otherwise. The method has been implemented as an R/BioConductor library and published in [Van Gassen et al., Cytometry A, 2015](#).
- We have developed a FlowSOM FlowJo plugin that integrates this method into FlowJo. A video tutorial is available [here](#).

Download and installation

- Please review [FlowJo documentation in installing plugins](#). Remember to set your R in Preferences/Diagnostics/R Path as shown in that document.
- Download the FlowJo FlowSOM plugin from [here](#) or from the [FlowJo Exchange](#).
- In order to use the FlowSOM plugin, you will need [FlowJo 10.4.1](#) or later. **With older versions of FlowJo, FlowSOM may still appear to work, but the results when running on subpopulations will be wrong!**
- You will also need [R](#), and the [flowCore](#) (> 1.42.2), [FlowSOM](#) (>

1.8.0) and [pheatmap](#) (> 1.0.8, optional) libraries in R. Generally, those can be installed in your R by typing the following in your console:

```
source("https://bioconductor.org/biocLite.R")
biocLite("flowCore")
biocLite("FlowSOM")
install.packages("pheatmap")
```

- Note: On a Mac, R-based plugins may fail to calculate if the file path to either the data or the workspace contains a space or other special characters. Sorry, we will fix that. In the meantime, please avoid spaces and special characters in your path.
- Note: The FlowSOM plugin can also be used in SeqGeq 1.1, e.g., on principal components. Then you can use the AutogateCategorical plugin to create the populations from FlowSOM results.

Leave us your feedback

- Please write to techsupport@flowjo.com with any questions or concerns.

Source code

This plugin is open source, the source is contained as a ZIP file in the download from the FlowJo Exchange.