

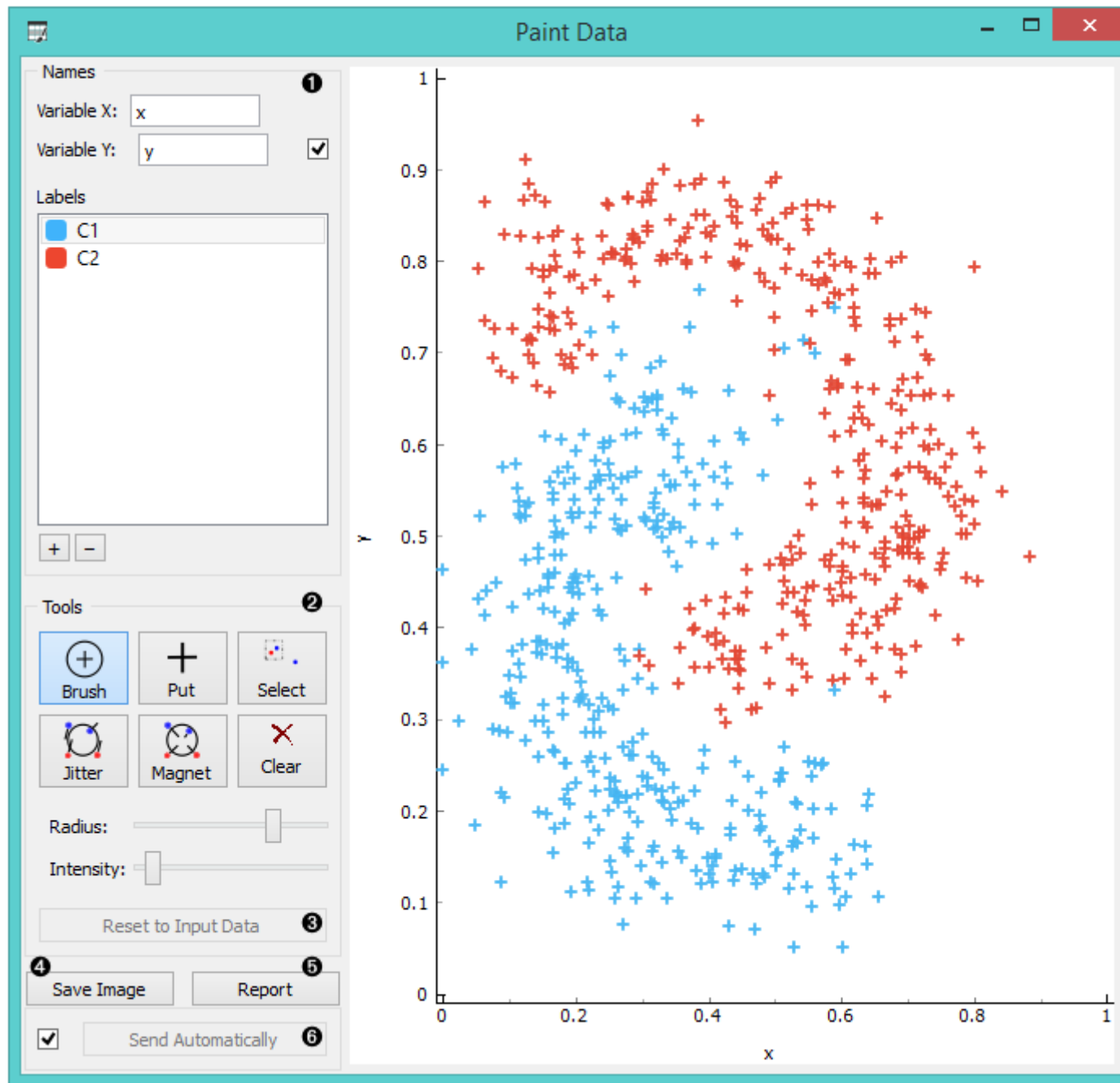
Paint Data

Paints data on a 2D plane. You can place individual data points or use a brush to paint larger datasets.

Outputs

- Data: dataset as painted in the plot

The widget supports the creation of a new dataset by visually placing data points on a two-dimension plane. Data points can be placed on the plane individually (*Put*) or in a larger number by brushing (*Brush*). Data points can belong to classes if the data is intended to be used in supervised learning.



1. Name the axes and select a class to paint data instances. You can add or remove classes. Use only one class to create classless, unsupervised datasets.

2. Drawing tools. Paint data points with *Brush* (multiple data instances) or *Put* (individual data instance). Select data points with *Select* and remove them with the Delete/Backspace key. Reposition data points with *Jitter* (spread) and *Magnet* (focus). Use *Zoom* and scroll to zoom in or out. Below, set the radius and intensity for Brush, Put, Jitter and Magnet tools.
3. Reset to Input Data.
4. *Save Image* saves the image to your computer in a .svg or .png format.
5. Produce a report.
6. Tick the box on the left to automatically commit changes to other widgets. Alternatively, press *Send* to apply them.

Example

In the example below, we have painted a dataset with 4 classes. Such dataset is great for demonstrating k-means and hierarchical clustering methods. In the screenshot, we see that *k-Means*, overall, recognizes clusters better than *Hierarchical Clustering*. It returns a score rank, where the best score (the one with the highest value) means the most likely number of clusters. Hierarchical clustering, however, doesn't group the right classes together. This is a great tool for learning and exploring statistical concepts.

