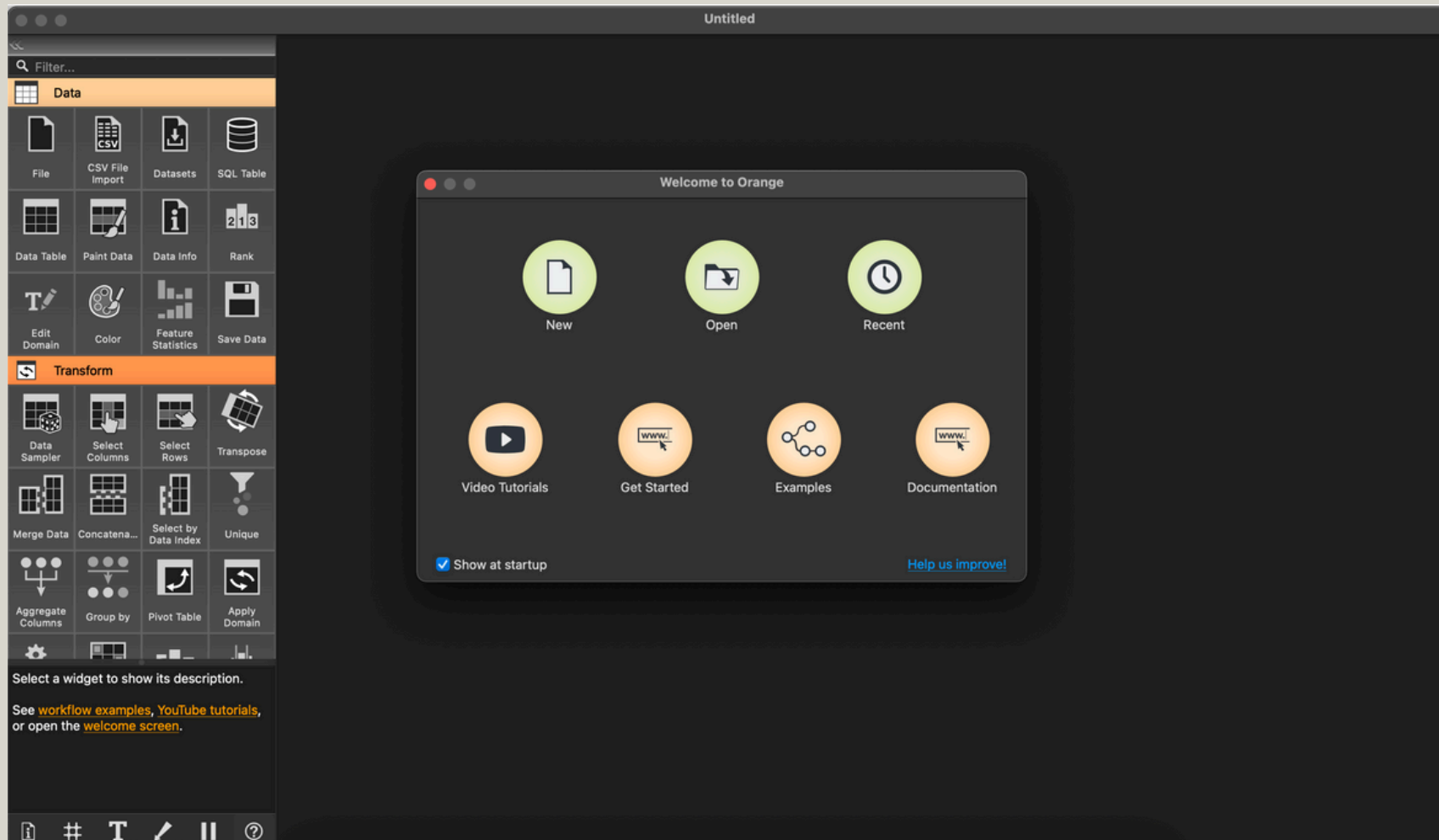
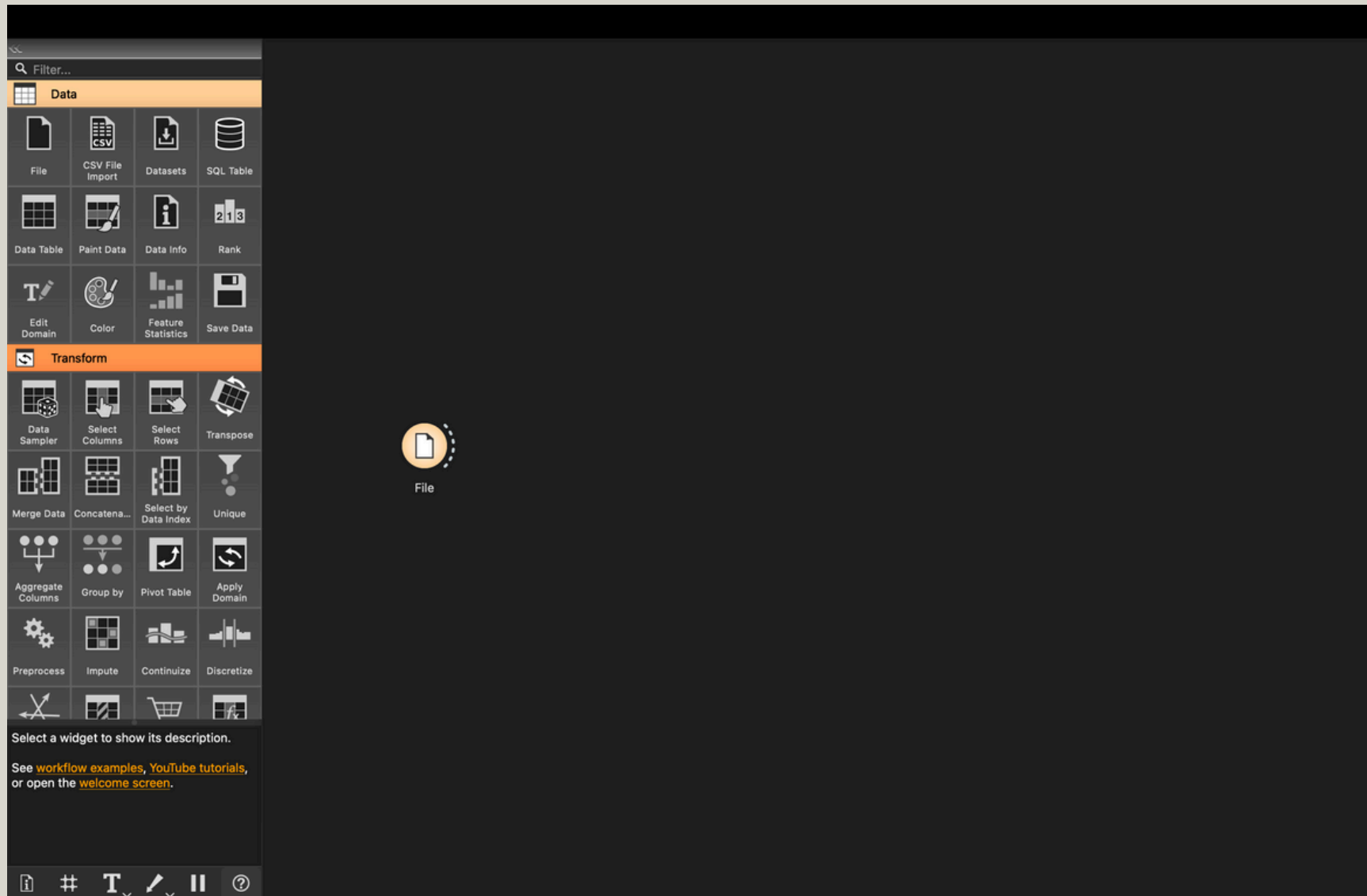


Data Science with Orange

Step 1: Launch Orange Data Mining Software



Step 2: Select the Data Widget



Step 3: Load the iris Dataset

The screenshot displays the Orange3 data mining software interface. On the left is a sidebar with a 'Data' section containing icons for File, CSV File Import, Datasets, and SQL Table. Below this is a 'Transform' section with various data manipulation icons. At the bottom of the sidebar is a 'File' section with a description: 'Read data from an input file or network and send a data table to the output.' and a 'more...' link.

The main workspace shows a 'File' widget configuration window. The 'Source' section has 'File:' selected with the path 'datasets/iris.tab'. The 'File Type' is set to 'Automatically detect type'. The 'Info' section provides details about the 'Iris flower dataset': 'Classical dataset with 150 instances of Iris setosa, Iris virginica and Iris versicolor. 150 instances, 4 features (no missing values), Classification; categorical class with 3 values (no missing values), 0 meta attributes'.

The 'Columns (Double click to edit)' section contains a table with the following data:

	Name	Type	Role	Values
1	sepal length	N numeric	feature	
2	sepal width	N numeric	feature	
3	petal length	N numeric	feature	
4	petal width	N numeric	feature	
5	iris	C categorical	target	Iris-setosa, Iris-versicolor, Iris-virginica

At the bottom of the configuration window are 'Reset' and 'Apply' buttons, and a 'Browse documentation datasets' button. The status bar at the very bottom shows a question mark icon, a document icon, and the number '150'.

Step 4: Display the Dataset in a Data Table

The screenshot shows the Orange3 data mining software interface. The title bar at the top reads "Untitled". On the left, there is a sidebar with a search bar labeled "Filter...". Below it, two main categories are visible: "Data" and "Transform".

The "Data" category includes the following widgets: File, CSV File Import, Datasets, SQL Table, Data Table, Paint Data, Data Info, Rank, Edit Domain, Color, Feature Statistics, and Save Data.

The "Transform" category includes: Data Sampler, Select Columns, Select Rows, Transpose, Merge Data, Concatena..., Select by Data Index, Unique, Aggregate Columns, Group by, Pivot Table, Apply Domain, Preprocess, Impute, Continuize, and Discretize.

At the bottom of the sidebar, there is a text prompt: "Select a widget to show its description." followed by links: "See [workflow examples](#), [YouTube tutorials](#), or open the [welcome screen](#)."

The main workspace on the right displays a workflow diagram. It starts with a "File" widget (represented by a document icon) connected to a "Data Table" widget (represented by a grid icon) via a curved arrow labeled "Data".

At the bottom of the sidebar, there is a toolbar with icons for information, a hash symbol, text, a paintbrush, a pause button, and a help button.

Step 5: Explore the dataset

The screenshot displays the Orange3 data mining software interface. On the left is a widget toolbox with categories: Data (File, CSV File Import, Datasets, SQL Table), Data Table, Paint Data, Data Info, Rank, Edit Domain, Color, Feature Statistics, and Save Data; Transform (Data Sampler, Select Columns, Select Rows, Transpose, Merge Data, Concatenation, Select by Data Index, Unique, Aggregate Columns, Group by, Pivot Table, Apply Domain); and Preprocess (Impute, Continuize, Discretize). The main workspace contains a 'Data Table' widget. Its left sidebar shows metadata: 150 instances (no missing data), 4 features, Target with 3 values, and No meta attributes. It also has checkboxes for 'Show variable labels (if present)' (checked), 'Visualize numeric values' (unchecked), and 'Color by instance classes' (checked). A 'Selection' section shows 'Select full rows' is checked. At the bottom of the sidebar are buttons for 'Restore Original Order' and 'Send Automatically' (checked). The main area of the widget displays a table with 21 rows and 6 columns: 'iris', 'sepal length', 'sepal width', 'petal length', and 'petal width'. The 'iris' column lists 'Iris-setosa' for all rows. The bottom status bar shows a help icon, a document icon, and zoom controls set to 150%.

Data Table

Info

150 instances (no missing data)
4 features
Target with 3 values
No meta attributes.

Variables

- ☒ Show variable labels (if present)
- ☐ Visualize numeric values
- ☒ Color by instance classes

Selection

- ☒ Select full rows

Restore Original Order

☒ Send Automatically

	iris	sepal length	sepal width	petal length	petal width
1	Iris-setosa	5.1	3.5	1.4	0.2
2	Iris-setosa	4.9	3.0	1.4	0.2
3	Iris-setosa	4.7	3.2	1.3	0.2
4	Iris-setosa	4.6	3.1	1.5	0.2
5	Iris-setosa	5.0	3.6	1.4	0.2
6	Iris-setosa	5.4	3.9	1.7	0.4
7	Iris-setosa	4.6	3.4	1.4	0.3
8	Iris-setosa	5.0	3.4	1.5	0.2
9	Iris-setosa	4.4	2.9	1.4	0.2
10	Iris-setosa	4.9	3.1	1.5	0.1
11	Iris-setosa	5.4	3.7	1.5	0.2
12	Iris-setosa	4.8	3.4	1.6	0.2
13	Iris-setosa	4.8	3.0	1.4	0.1
14	Iris-setosa	4.3	3.0	1.1	0.1
15	Iris-setosa	5.8	4.0	1.2	0.2
16	Iris-setosa	5.7	4.4	1.5	0.4
17	Iris-setosa	5.4	3.9	1.3	0.4
18	Iris-setosa	5.1	3.5	1.4	0.3
19	Iris-setosa	5.7	3.8	1.7	0.3
20	Iris-setosa	5.1	3.8	1.5	0.3
21	Iris-setosa	5.4	3.4	1.7	0.2

Data Table

View the dataset in a spreadsheet.

[more...](#)

Step 6: Visualize the Data with a Scatter Plot

