

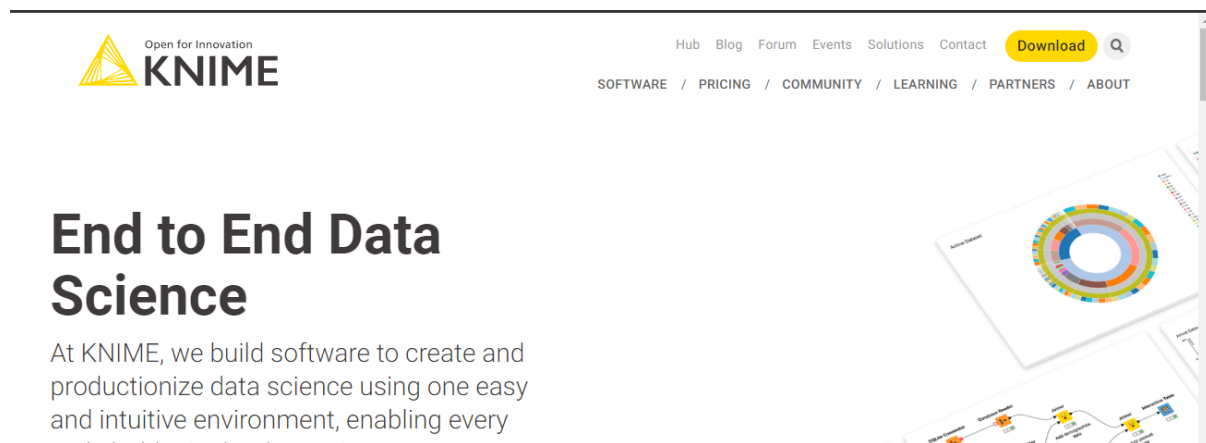
KNIME Analytics Platform

What is KNIME, what does KNIME stand for and where does it come from?

KNIME stands for **KoNstanz Information MinEr** and is pronounced: [naim] (that is, with a silent "k", just as in "knife"). It is developed by KNIME AG located in Zurich and the group of Michael Berthold at the University of Konstanz, Chair for Bioinformatics and Information Mining. Why is it called "KNIME"? Well, "Konstanz Information Miner" used to be called "Hades" (as the pub some of its creators ended up going to often). But that raised lots of not so nice questions ("so this is where your data ends up when it's not useful anymore?") so we looked for another name. "KIM", the obvious choice was, of course, already taken. However, the Konstanz license plate symbol is "KN", so KNIM was our next choice. Adding a vowel at the end was suggested by a native speaker to "round it off", as he put it. And it appears in "Miner" so we felt ok about it. Plus URLs such as "knime.org", "knime.de", ... were still available at that time...

Downloading KNIME

Go to : <https://www.knime.com/> and click "Download" Button



Fill out the form and download

Home

1 Register for Help & Updates

2 Download KNIME

3 Get Started

New to the KNIME family? Let us help you get started with a short series of introductory emails. These messages will get you up and running as quickly as possible and introduce you to resources that will maximize your success with the KNIME Analytics Platform.

First Name

Last Name

E-Mail *

Country

Company/Affiliation

Would you mind telling us how you heard about KNIME?

Other KNIME Related News...

Are you interested in being notified of events in your area, software updates, and other news related to KNIME Analytics Platform? If so, subscribe to our mailing list - it's the best way to keep current on the latest KNIME news.

☐ I'd like to get a few emails from Emil to help me get started.

☐ I'd like to register for regular updates about new releases and other KNIME news (your email address will obviously not be used for any other purposes)

To continue, you have to accept our [privacy policy](#) and the [terms and conditions](#):

☐ I accept the privacy policy and terms and conditions. *

The personal data you enter here will be stored and used for no other reason than to send you messages regarding KNIME, updates, bug fixes, and occasional KNIME news summary.

Submit

Download Instructions


1. Go to the [download page](#) to start downloading KNIME Analytics Platform
2. The download page shows three tabs which can be opened individually:
 - *Register for Help and Updates*: here you can optionally provide some personal information and sign up to our mailing list to receive the latest KNIME news
 - *Download KNIME*: this is where you can download the software
 - *Getting Started*: this tab gives you information and links about what you can do after you have installed KNIME Analytics Platform
3. Now open the *Download KNIME* tab and click the installation option that fits your operating system.

Notes on the different options for Windows:

- The Windows installer extracts the compressed installation folder, adds an icon to your desktop, and suggests suitable memory settings.
 - The self-extracting archive simply creates a folder containing the KNIME installation files. You don't need any software to manage archiving.
 - The zip archive can be downloaded, saved, and extracted in your preferred location on a system to which you have full access rights.
4. Read and accept the privacy policy and terms and conditions. Then click *Download*.

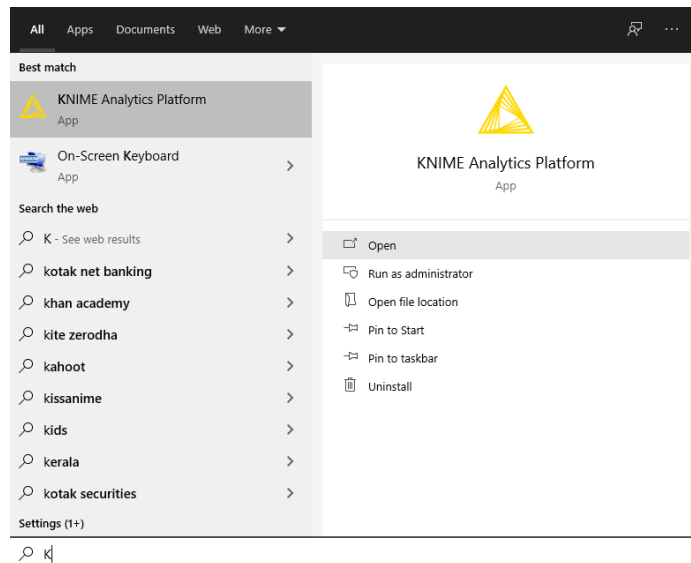
Installing KNIME

Once it is downloaded, double click on it to start installation.

 KNIME 4.1.2 Installer (64bit).exe	30-04-2020 21:27	Application	4,75,705 KB
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For more info: <https://www.knime.com/installation>

Post Installation- search for KNIME and open it.



Getting Started

Source: <https://www.knime.com/getting-started>

Start KNIME Analytics Platform and when the KNIME Analytics Platform Launcher window appears, define the KNIME workspace here as shown in Figure 1.

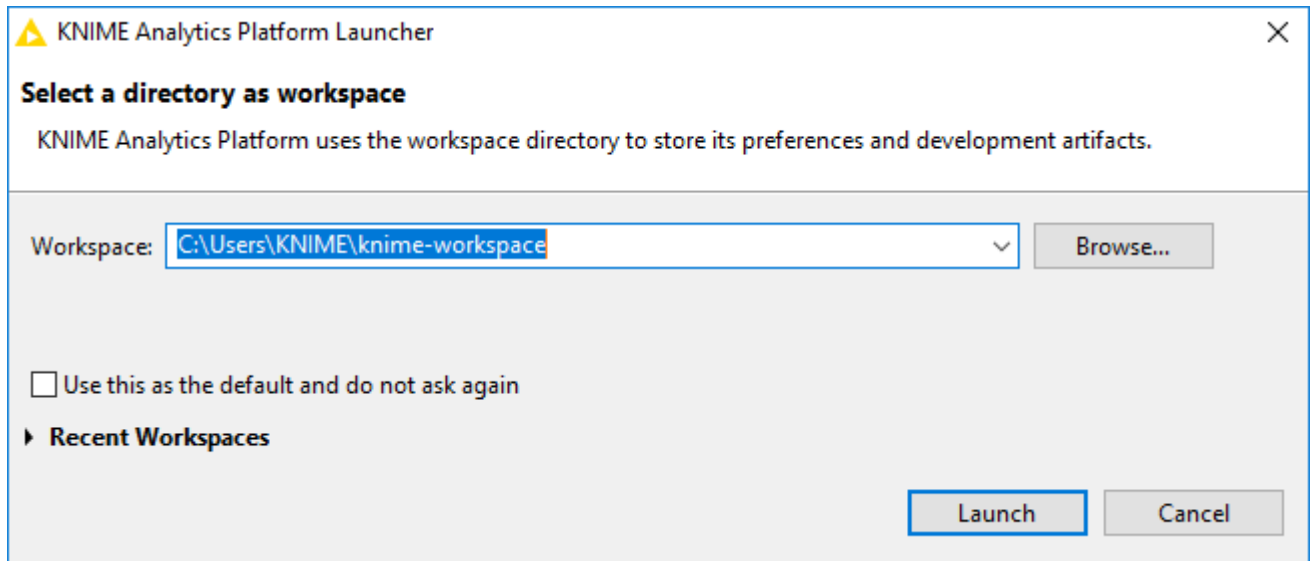


Figure 1:KNIME Analytics Platform Launcher

The KNIME workspace is a folder on your local computer to store your KNIME workflows, node settings, and data produced by the workflow. The workflows and data stored in your workspace are available through the KNIME Explorer in the upper left corner of the KNIME Workbench.

After selecting a folder as the KNIME workspace for your project, click "Launch". When in use, the KNIME Analytics Platform user interface - the KNIME Workbench - looks like the screenshot shown in Figure 2.

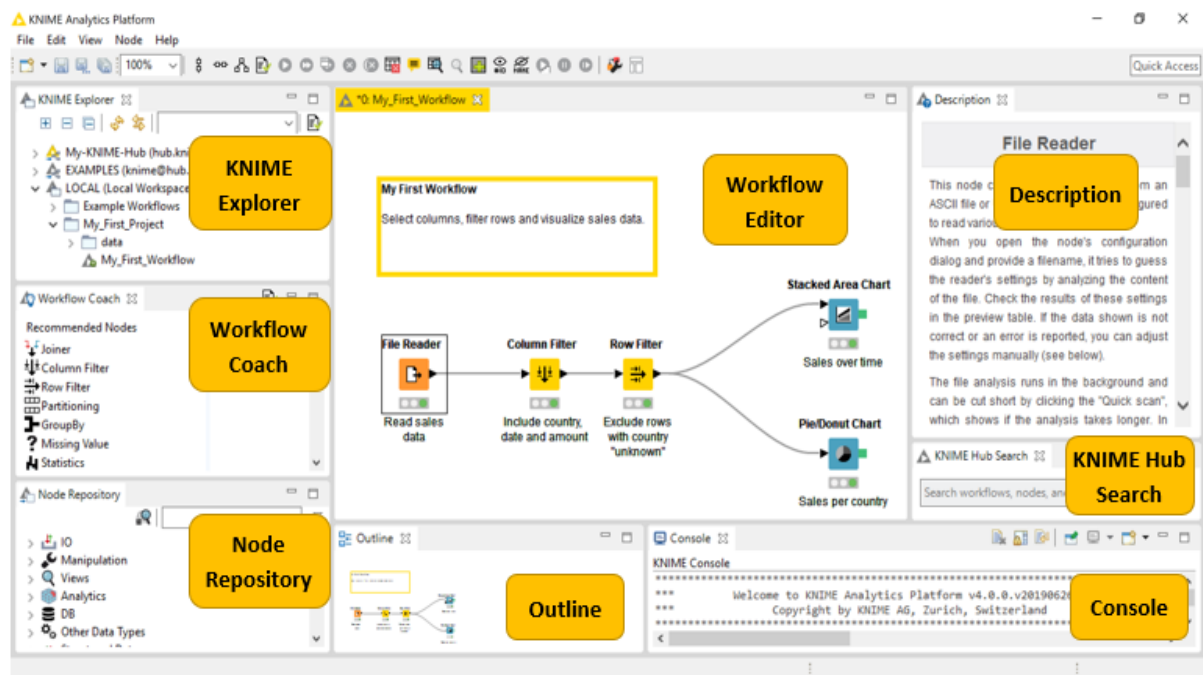


Figure 2: KNIME Workbench

The KNIME Workbench is made up of the following components:

- **KNIME Explorer:** Overview of the available workflows and workflow groups in the active KNIME workspaces, i.e. your local workspace as well as KNIME Servers.
- **Workflow Coach:** Lists node recommendations based on the workflows built by the wide community of KNIME users. It is inactive if you don't allow KNIME to collect your usage statistics.
- **Node Repository:** All nodes available in core KNIME Analytics Platform and in the extensions you have installed are listed here. The nodes are organized by categories but you can also use the search box on the top of the node repository to find nodes.
- **Workflow Editor:** Canvas for editing the currently active workflow.
- **Description:** Description of a selected node (in the Workflow Editor or Node Repository), or description of the Workflow (if no node is selected).
- **KNIME Hub Search:** Search the [KNIME Hub](#) from within KNIME Analytics Platform. The search will open a browser window with the entered search query.
- **Outline:** Overview of the currently active workflow.
- **Console:** Shows execution messages indicating what is going on under the hood.

Info: A more detailed explanation of the different views in the KNIME Workbench is provided in the [KNIME Workbench Guide](#), as well as on the introductory video [The KNIME Workbench](#).

Nodes and Workflows

In KNIME Analytics Platform, individual tasks are represented by nodes. Each node is displayed as a colored box with input and output ports, as well as a status, as shown in Figure 3. The input(s) are the data that the node processes, and the output(s) are the resulting datasets. Each node has specific settings, which we can adjust in a configuration dialog. When we do, the node status changes, shown by a traffic light below each node. Nodes can perform all sorts of tasks, including reading/writing files, transforming data, training models, creating visualizations, and so on.

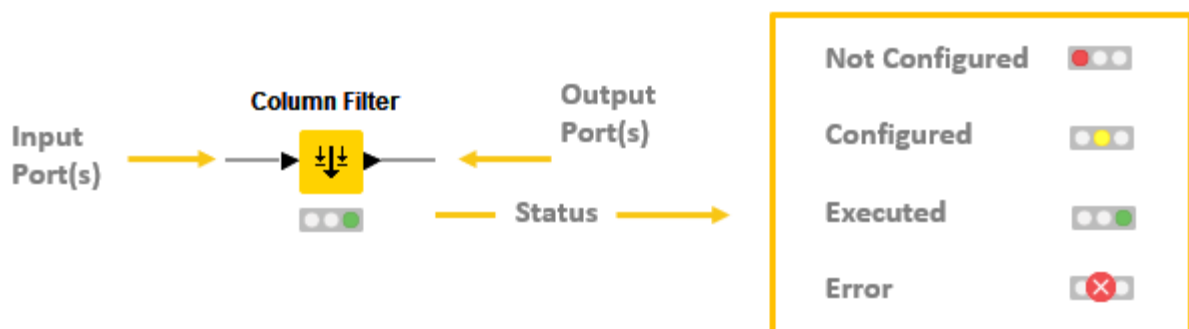


Figure 3: Node ports and node status

A collection of interconnected nodes constitutes a workflow, and usually represents some part - or perhaps all - of a particular data analysis project.

Let's now start building an example workflow, where we analyze some sales data. When we're finished, it will look like the workflow shown in Figure 4.

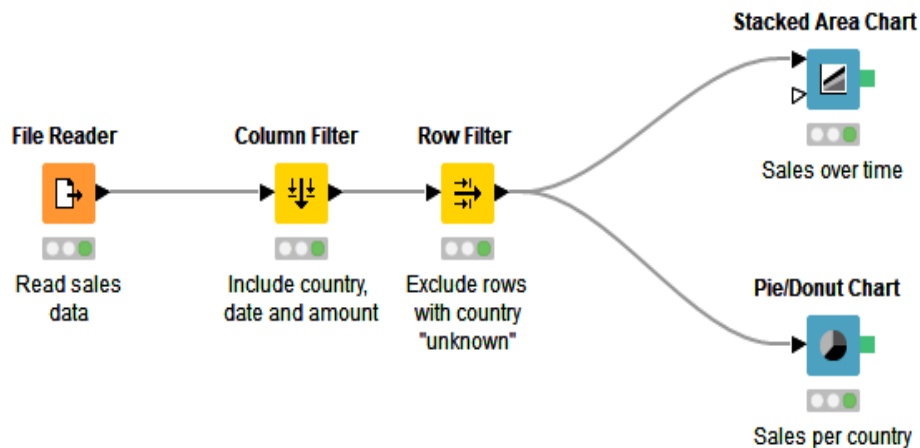


Figure 4: Example workflow

The example workflow in Figure 4 reads data from a CSV file, filters a subset of the columns, filters out some rows, and visualizes the data in two graphs: a stacked area chart and a pie chart, which you can see in Figure 5: one showing the development of sales over time, and the other showing the share of different countries on total sales.

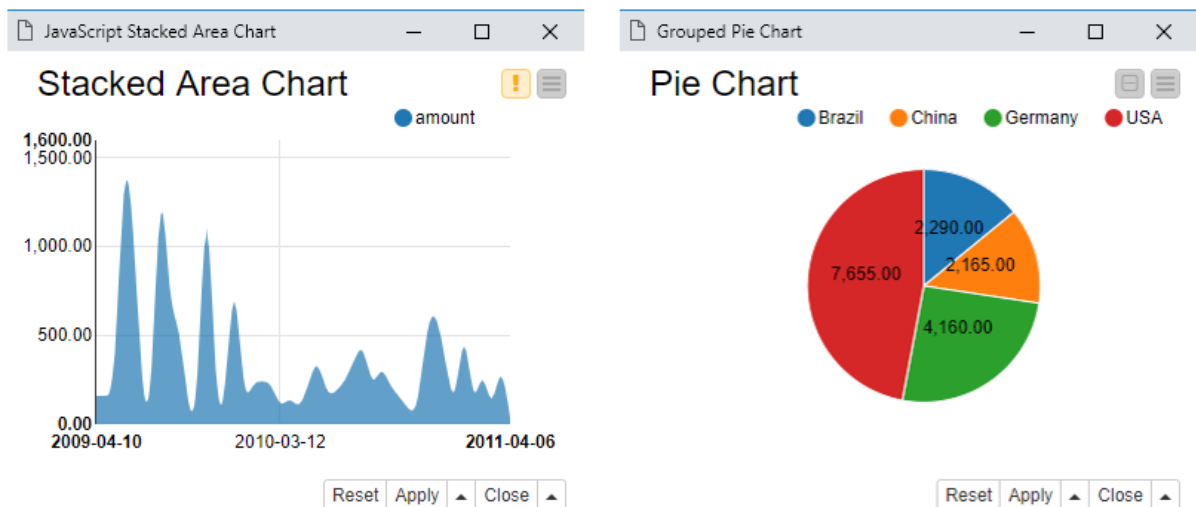


Figure 5: Output views of the example workflow

Build your first workflow

In the following, we want to show you how to build the workflow from Figure 4 yourself. Don't worry if you get stuck, the example workflow is also available on the [KNIME Hub](#).

To get started, first download the CSV file that contains the data that we are going to use in the workflow. You can download the data [here](#). Next, create a new, empty workflow by:

- Clicking "New" in the toolbar panel at the top of the KNIME Workbench

- Or by right clicking a folder of your local workspace in the KNIME Explorer, as shown in Figure 6

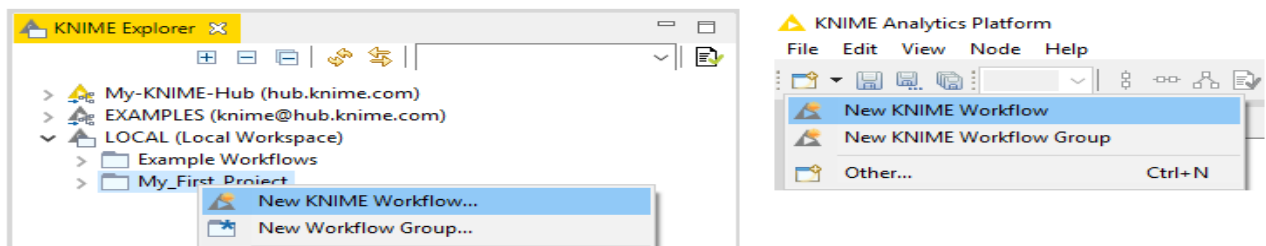


Figure 6: Creating a new, empty workflow

The first node you need is the File Reader node, which you'll find in the node repository. You can either navigate to IO → Read → File Reader, or type a part of the name in the search box in the node repository panel.

To use the node in your workflow you can either:

- Drag and drop it from the node repository to the workflow editor
- Or double click the node in the node repository. It automatically appears in the workflow editor.

Let's now define the settings for this node:

- Open the configuration dialog either by double clicking the File Reader node, or by right clicking it and selecting "Configure..." as shown in Figure 7.

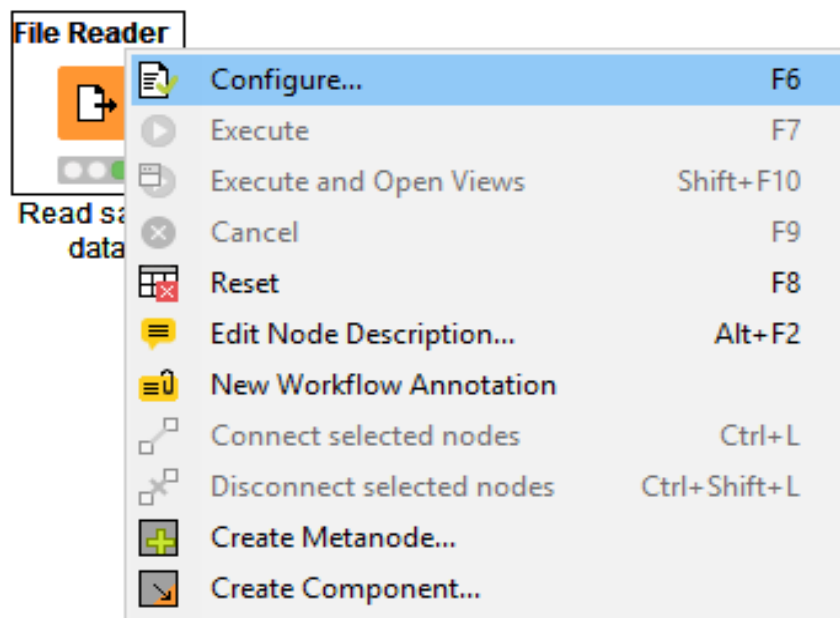


Figure 7: Configuring a node

- In the configuration dialog, define the file path by clicking the "Browse" button, then check other available settings, and preview the data as shown in Figure 8.

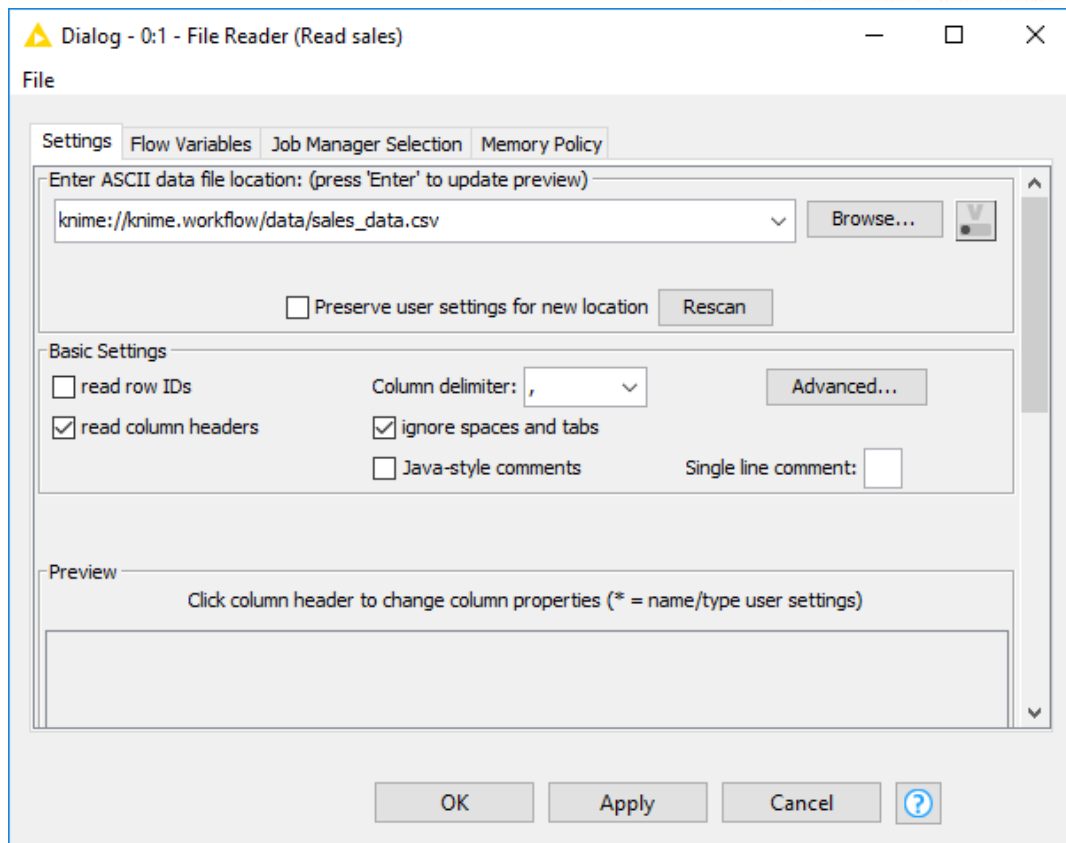


Figure 8: Configuration dialog of the File Reader node

You may now want to inspect the output table to see if the data file was read as you intended. To inspect the output table:

- Execute the File Reader node by right clicking the node and selecting "Execute"
- Open the output table by right clicking the executed node and selecting the last option in the menu: "File Table"

If the data was read in correctly, add the Column Filter node to the workflow editor and connect it to the File Reader node:

- Click the output port of the File Reader node, holding the mouse button and releasing it at the input port of the Column Filter node
- Alternatively, select the File Reader node by clicking it once in your workflow, and then double clicking the Column Filter node in the node repository. This method automatically connects the Column Filter node to the File Reader node.

Before you proceed, you must configure the Column filter node:

- Move the columns "country", "date", and "amount" into the green-framed *Include* field either by double clicking them, or using the buttons between the *Exclude* and *Include* fields in the configuration dialog shown in Figure 9

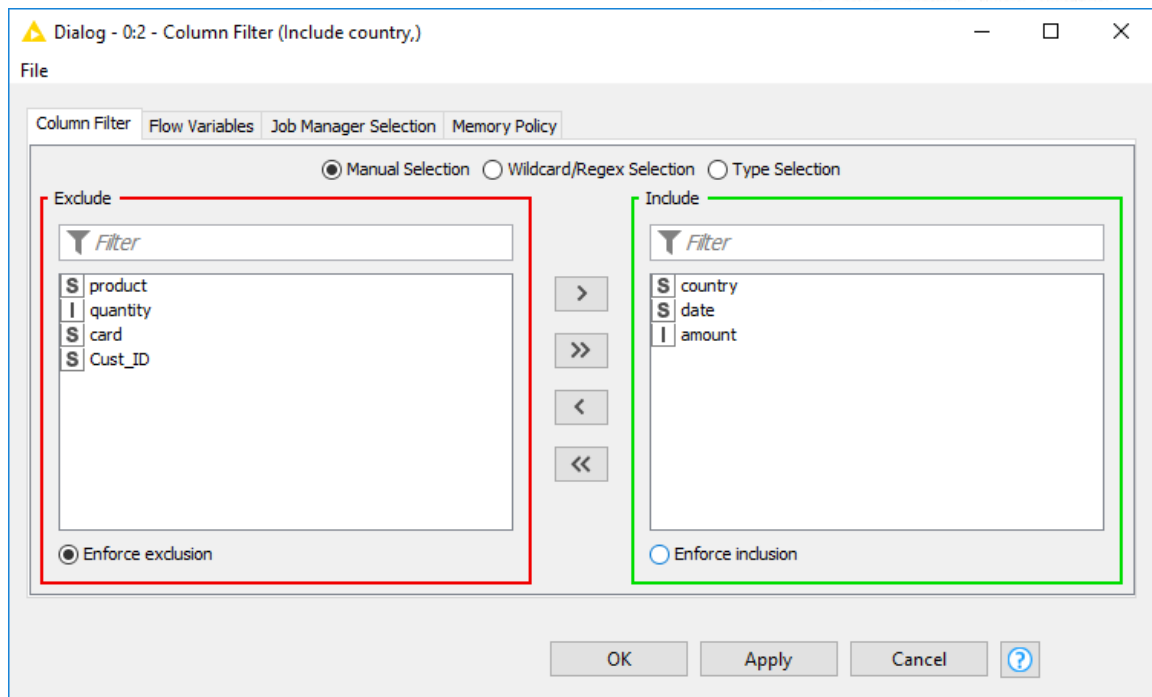


Figure 9: Configuring the Column Filter node

- Finish the configuration by clicking "OK"

Continue building the workflow:

- Adding the Row Filter node to the workflow editor and connecting it to the Column Filter node
- Open the configuration dialog of the Row Filter node and exclude rows from the input table where the column "country" has the value "unknown" as shown in Figure 10

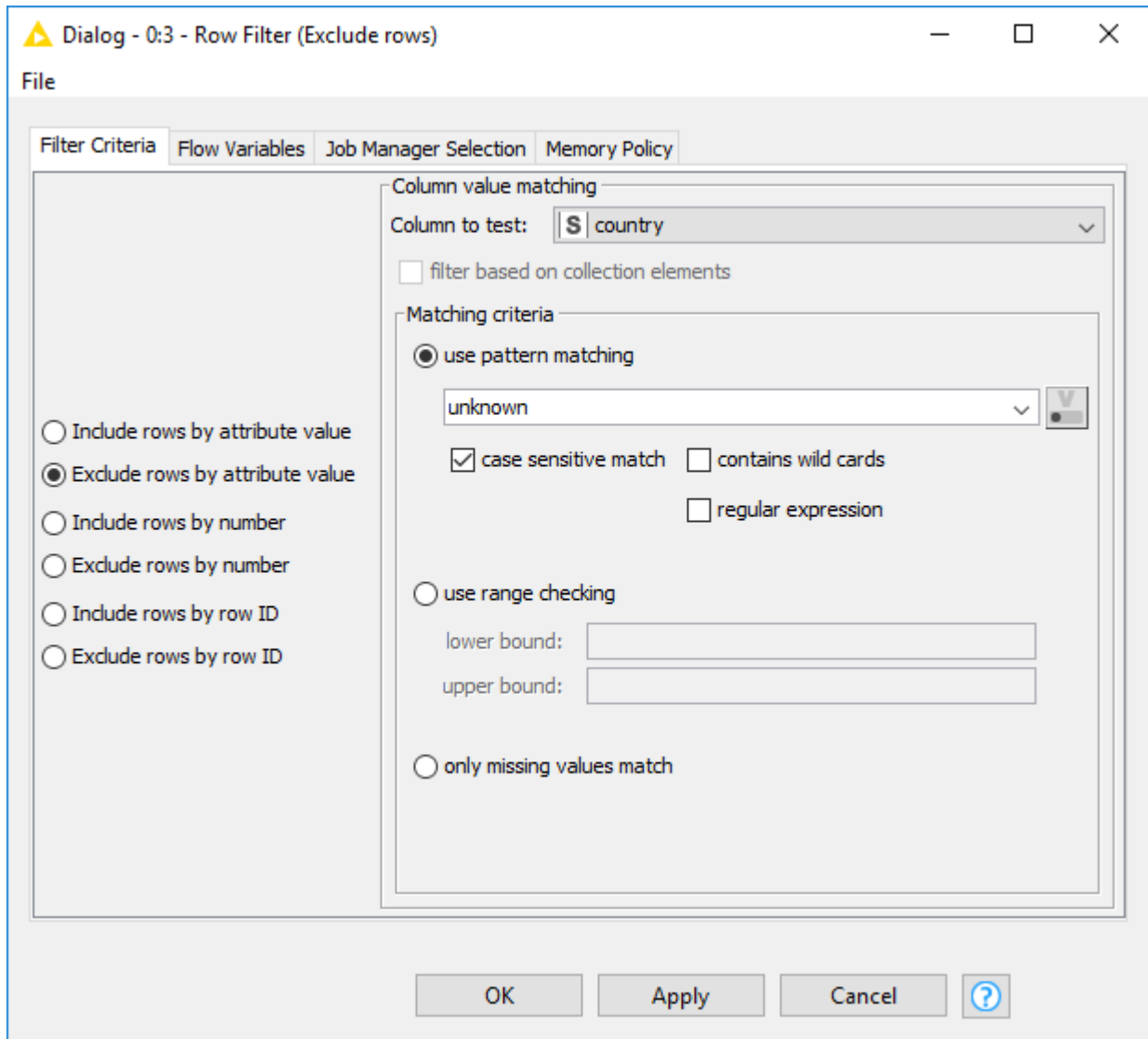


Figure 10: Configuring the Row Filter node

Now that the data has been filtered, let's move on to data visualization:

- Search for the nodes Stacked Area Chart (JavaScript) and Pie/Donut Chart (JavaScript) in the node repository, and add them to the workflow editor, both connected to the Row Filter node
- Open the configuration dialog of the Stacked Area Chart (JavaScript) node. Select the column "date" as the x-axis column as shown in Figure 11.

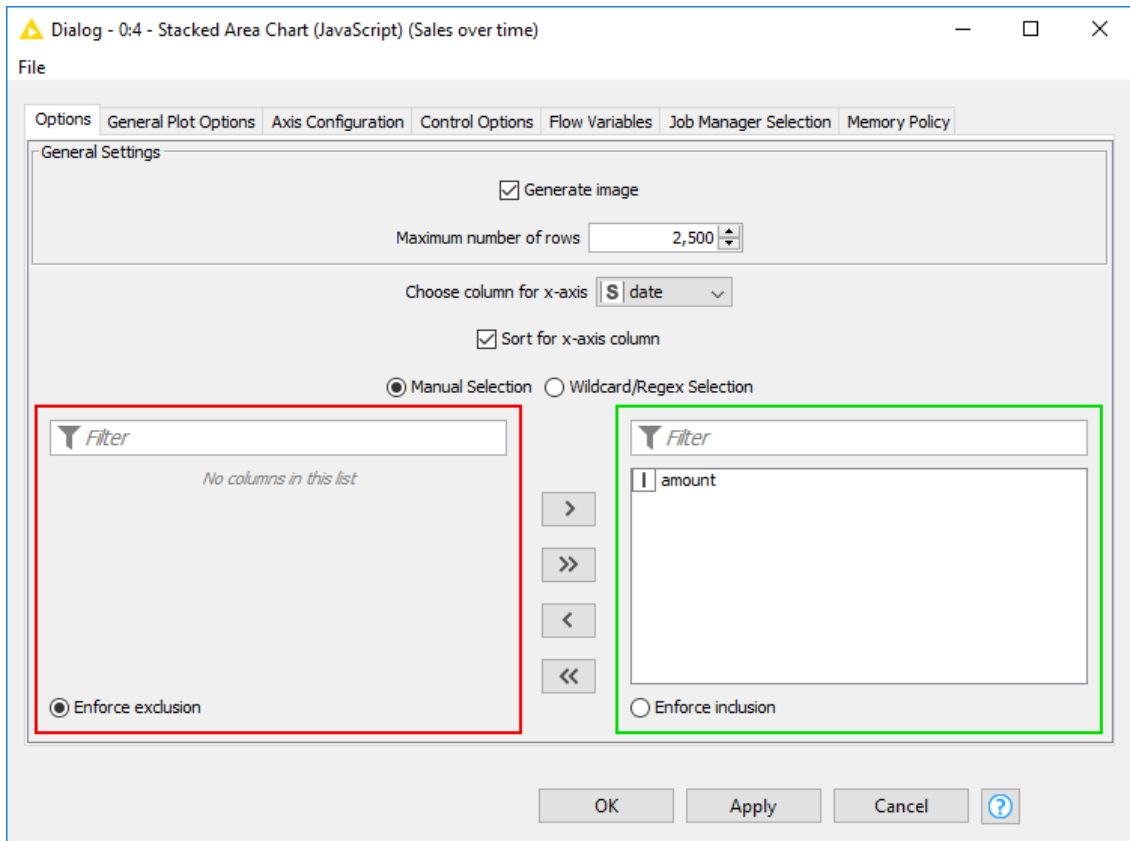


Figure 11: Configuring the Stacked Area Chart (JavaScript) node

- Now open the configuration dialog of the Pie/Donut Chart (JavaScript) node and select "country" as category column, "Sum" as aggregation method, and "amount" as frequency column for the pie chart. Both of these configuration options are shown in Figure 12.

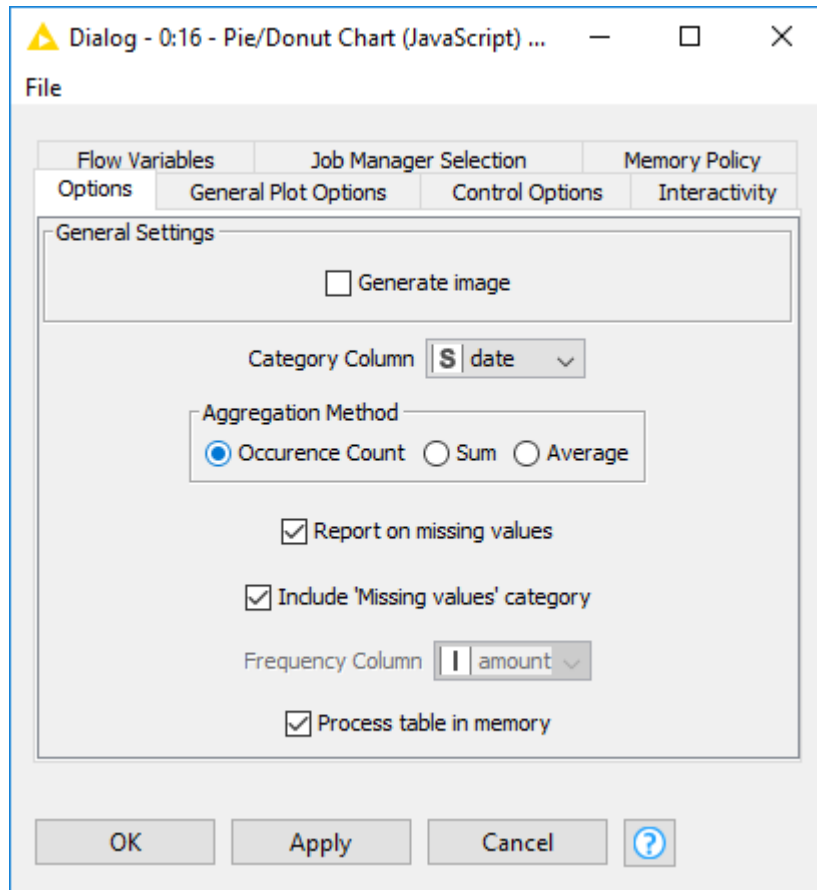


Figure 12: Configuring the Pie/Donut Chart (JavaScript) node

The workflow is finished, and the next step is to execute it and view the output. You do this either by clicking the "Execute all executable nodes" button in the toolbar shown in Figure 13...



Figure 13: Executing all executable nodes from the toolbar

, or by selecting the last nodes of the different branches of the workflow, right clicking the selection, and then clicking "Execute" in the menu.

To inspect the interactive output view of a JavaScript based node:

- Choose the "Execute and Open Views" option for an unexecuted node as shown in Figure 14

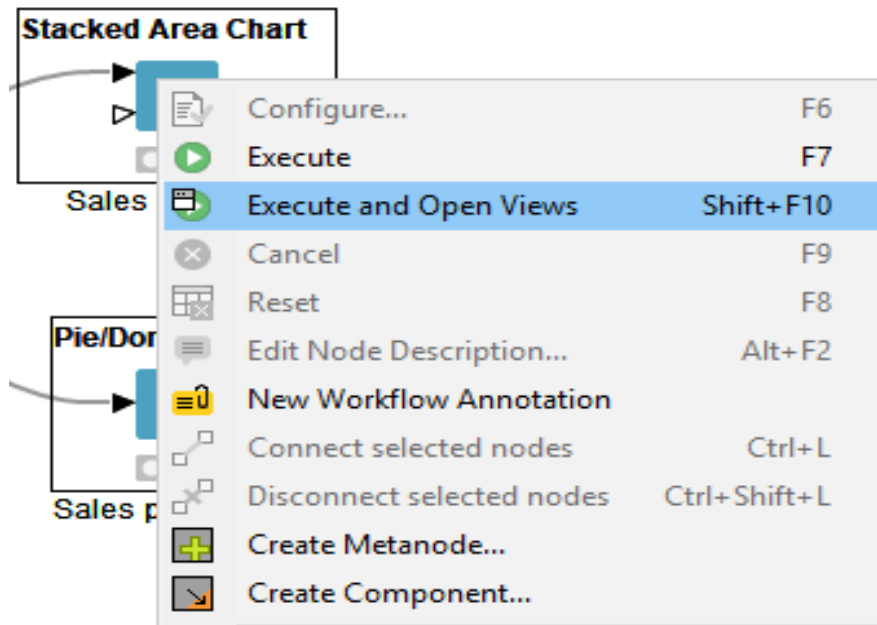


Figure 14: Executing and opening interactive view

- Or, once a node is executed, right click the node and select "Interactive View: ..." instead, as shown in Figure 15

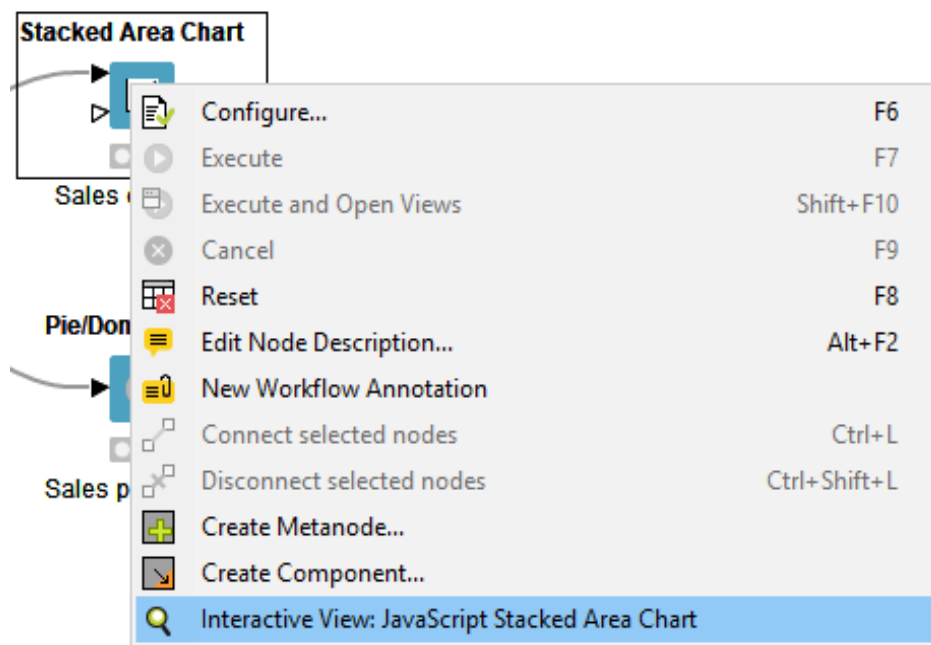


Figure 15: Opening interactive view of an executed node

Currently, the pie chart uses default colors for different countries in the data. With the Color Manager node, you can assign the countries other colors than the default ones you see in Figure 5. The colors have to be assigned before building the graph, so you'll have to add the Color Manager node in the middle of the workflow.

Add the Color Manager node:

- By dragging the node from the node repository and releasing it on its place between the Row Filter node and the Pie Donut Chart node in the workflow when the connection has turned red, as shown in Figure 16. The red connection means that it's ready to accept the new node when you release the mouse.

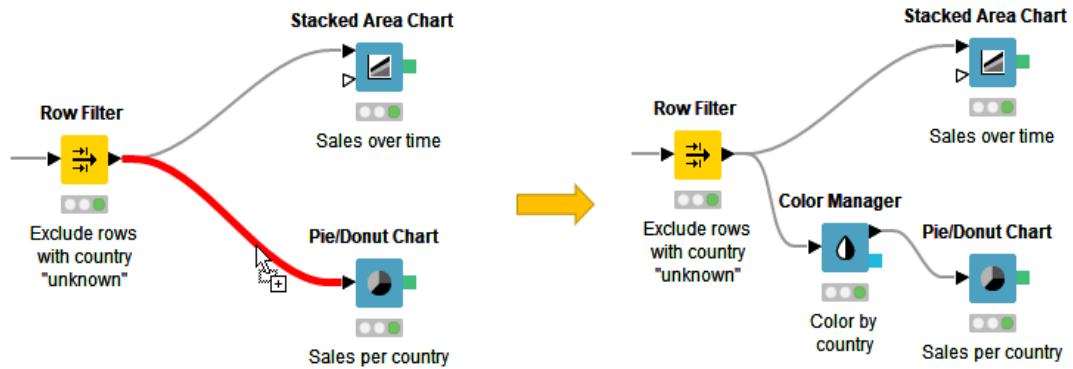


Figure 16: Opening interactive view of an executed node

FAQs

Source: <https://www.knime.com/faq>

Forum

Source: <https://forum.knime.com/>