Components with KNIME Analytics Platform

Components behave like actual nodes and are regularly released on the KNIME Hub. Browse them all at hub.knime.com. Each new component is assigned to one of the 5 categories, represented by a color and symbol.

**Components**
- **Guided Analytics Example:** Trains a classifier model and visualizes the results. You can also train and deploy it as a web service.
- **Automated Example:** Trains a prediction model and visualizes the results. You can also train and deploy it as a web service.
- **Visualization Example:** Visualizes the results of data analysis using various visualizations. You can also train and deploy it as a web service.
- **Data Manipulation Example:** Performs data transformations and visualizations. You can also train and deploy it as a web service.
- **Model Interpretability Example:** Generates a model-agnostic XAI explanation for an input model with four different methods. You can also train and deploy it as a web service.

### Component Setup

You can still change component names and ports after component creation. The following text field will let you title, buttons to change the order, remove or add. When adding a new row, a drop down menu appears to define the port type.

### Configuration Description

- **Component:** Creates a list of options of type String for a menu or radio buttons. You can also train and deploy it as a web service.
- **Configuration:** Creates a boolean variable for a selection of values. You can also train and deploy it as a web service.
- **Open View:** After executing a component that contains a widget or view node, you can open it to interact with the component output. You can also train and deploy it as a web service.

### Dialogue Layout Panel

- **Create Component:** To create a component multiple select all the nodes you want to encapsulate in the component. You can also train and deploy it as a web service.
- **Configure:** If you included a Configuration node in the component, open the configuration dialog. Change the configuration settings here before executing, just like any node.

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### Shared Components

Components can be reused as your personal customized KNIME nodes or they can also be shared with others via KNIME Hub and KNIME Server.

### Component Builder

Component builders can optionally implement component functionalities through coding. KNIME supports a number of coding languages. Code can be written as well as ways to adapt dependencies with the component. You can also train and deploy it as a web service.

### Flow Variable Filter

Filters the flow variables at the input and output of the component. Double-click the Input and Output ports inside the component to access a dialog. By default, flow variables pre-existing upstream of the component cannot be used inside. Simply, by default, flow variables generated within the component cannot be used downstream of the component.

### Error Handling

Fails on purpose when a certain condition is met. A custom error message appears on the node and on the outside of the component. Use it to detect errors and to visualize error messages.

### Resources

- **E-Books:** KNIME Advanced Luck covers advanced features & tips. KNIME Working Data provides insights in data science case studies from past projects. Both available at knime.com/knimepress
- **KNIME Blog:** Engaging topics, challenges, industry news, & knowledge nuggets at knime.com/blog
- **E-Learning Courses:** Take our online self-paced courses to learn about the different steps in a data science project (with exercises & solutions to test your knowledge) at www.knime.com/knime-self-paced-courses
- **KNIME Hub:** Browse and share workflows, nodes, and components. Add ratings, or comments to other workflows at hub.knime.com
- **KNIME Forum:** Join our global community & engage in discussions at forums.knime.org
- **KNIME Server:** For team-based collaboration, automation, management, & deployment check out KNIME Server at www.knime.com/knime-server