Create function models using yEd

The visualization program yEd (https://www.yworks.com/products/yed) from the company yWorks is a very good free software that you can use for creating function models.

The editing mode of yEd is optimized for other types of diagrams, but you can change that. Select **File -> Preferences -> Editor**. Adjust the settings as shown in the screenshot:
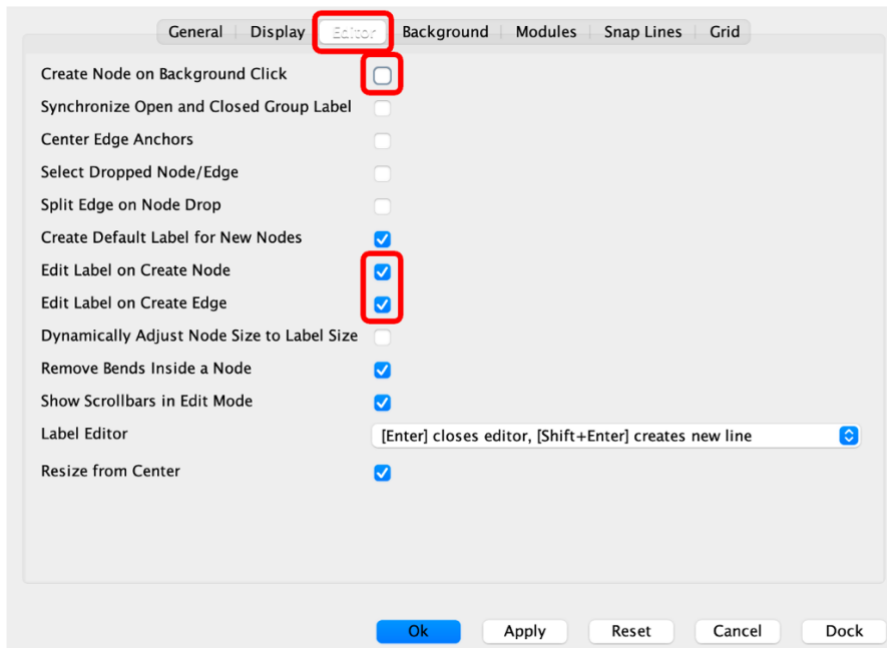
In order to use the TRIZ Consulting Group palettes, you must first download the ZIP file "Palettes-yEd" in the " Editors for functional analysis and cause-effect analysis" area on the https://www.triz-consulting.de/tools-level-1/?lang=en page and unpack it on your hard disk.

Then select **Manage Palette** from the **Edit** menu to activate the **Palette Manager**.

In the Palette Manager, select **Import Section**. A window then opens in which you can select the unpacked files with the extension ***.graphml**. They now appear in the "Available Palette Sections" area and can be moved to the "Displayed Palette Sections" area using the arrow pointing to the right. You can use the arrows on the right to move the palettes to a place in the sidebar that is suitable for you.
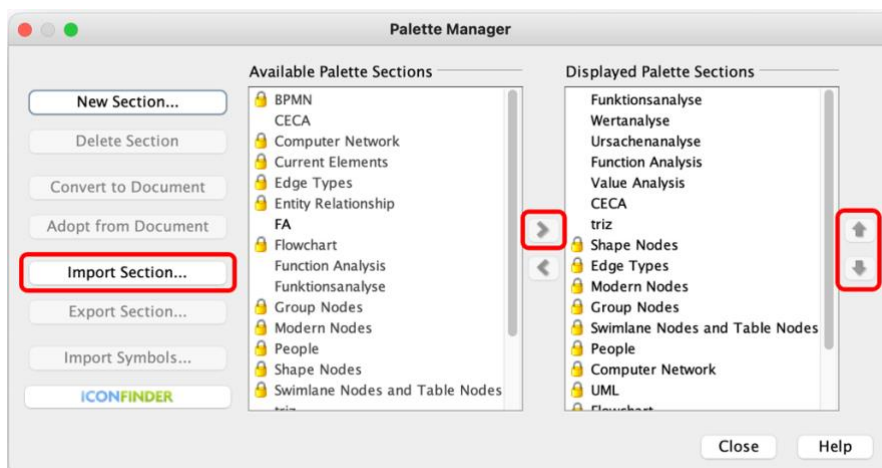
Then there are the new sections "Function Analysis", "Value Analysis" and "CECA" with symbols that simplify your work with the function analysis and cause-effects-chains-analysis.

Now it is worth watching the instruction video of the company yWorks on YouTube: https://www.youtube.com/watch?v=ujMhxPJnJCw. After that you will have the necessary basic knowledge to drag, place and label the components from the inserted sections.
In the previous presets, you had already activated that after inserting a symbol, its name can be entered automatically.

Let's take a simple example of a function analysis to illustrate working with yEd:
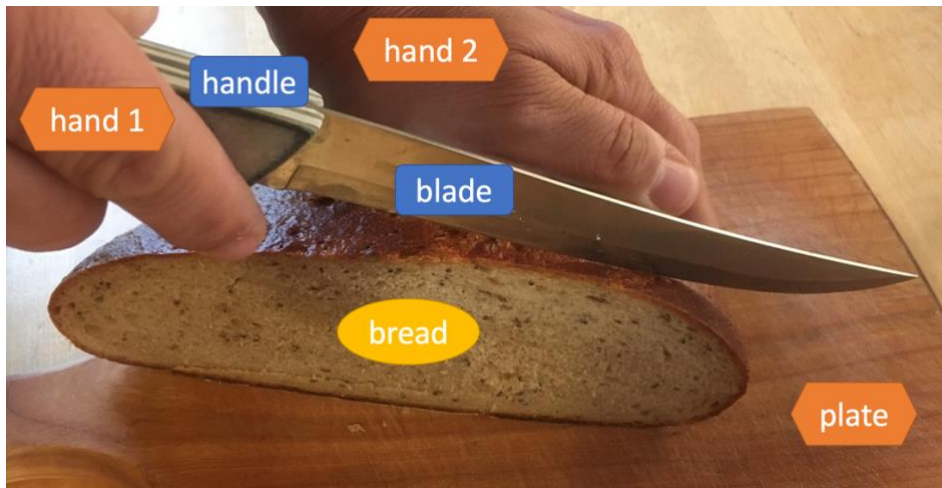
To create a function model with yEd, drag the elements from the palettes on the right side into the drawing sheet. If you want to create functions between components, double-click on a desired function until it is highlighted in blue and then connect two components with the mouse by selecting the first component and dragging it to the second component while holding down the mouse button. A function model could then look like this in yEd:
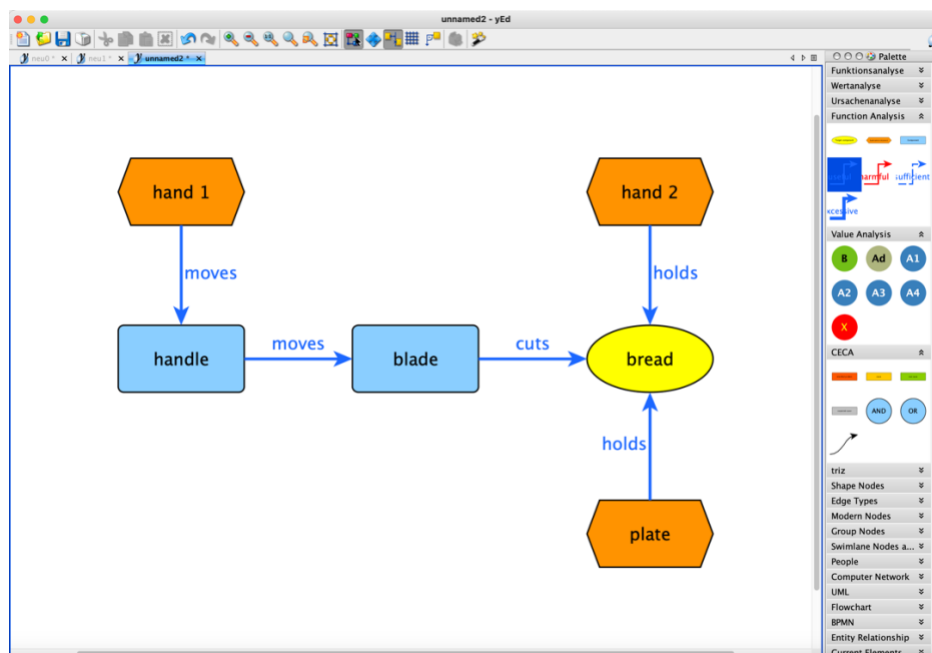
If you ever build a larger diagram, it can easily become confusing because the action arrows of the functions overlap. It becomes clearer by using the layout functions of the program. In the **Layout**

menu, for example, you select the **classic orthogonal layout** to automatically untangle a tangled diagram:
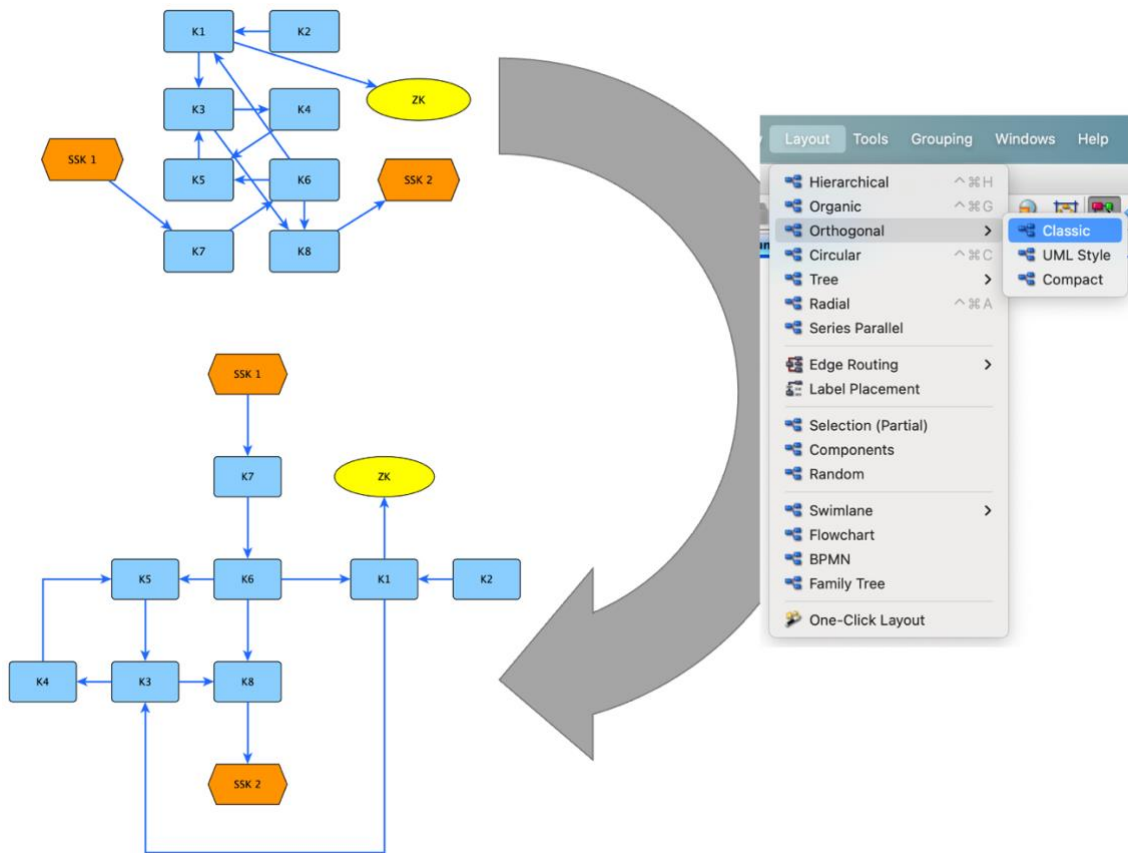
Other useful functions of the editor is the overview window and the "Neighborhood" context view. The overview window (**Windows -> Overview**) shows the large model in a reduced view. The current section is highlighted in the overview window. Using the mouse, you can easily move this section and inspect different areas of your model.

The "Neighborhood" context view (**Windows -> Context Views -> Neighborhood**) opens a small window that shows a section of the model. Click on a component of the model and see the result. All incoming and outgoing functions are shown. This is very helpful if you want to do value analysis with the model.