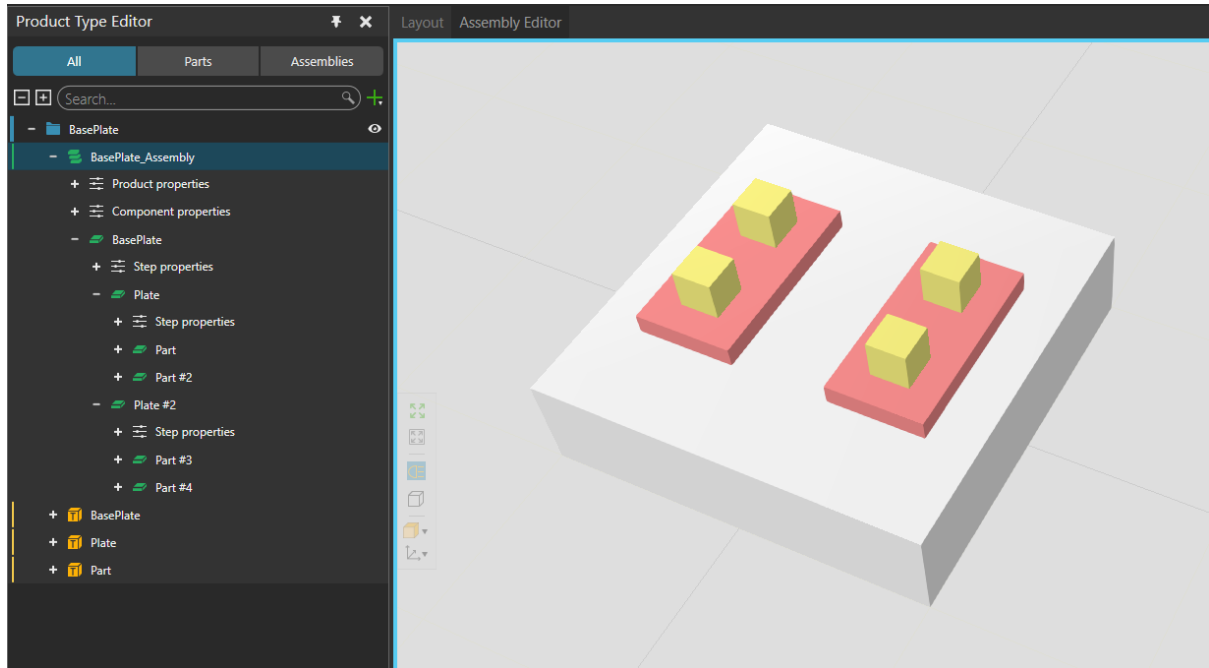


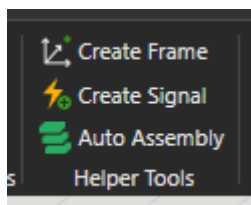
# Auto Assembly Add-on

Auto Assembly add-on for **Visual Components** can be used to automatically create product and assembly types for process modeling. As source for assembly you can use hierarchic structure formed by components, nodes or features.

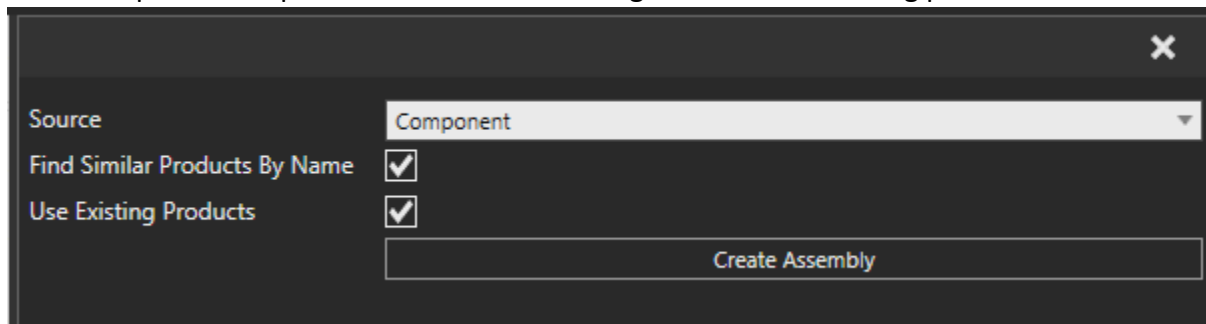


## How to use

To install the add-on copy add-on folder under your **Documents\Visual Components\4.X\My Commands** folder. This will add a new button under Process tab on Helper Tools group. Add-on requires Visual Components 4.4 or newer.

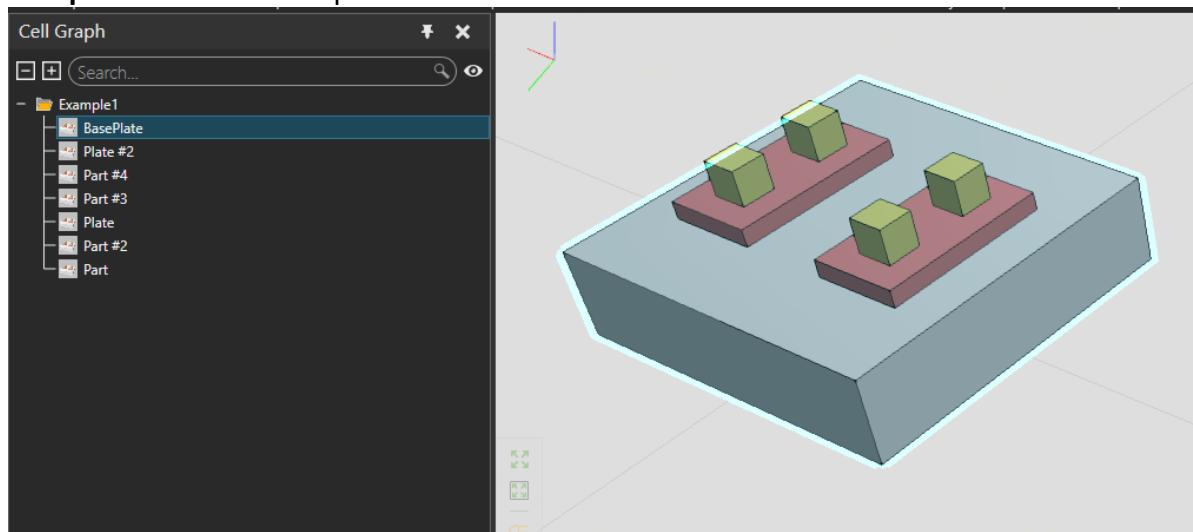


Before you use the tools make sure that you have created hierarchic structure using either components, nodes or features. Select the root component and click Auto Assembly button. This will open action panel for the add-on settings shown on following picture.

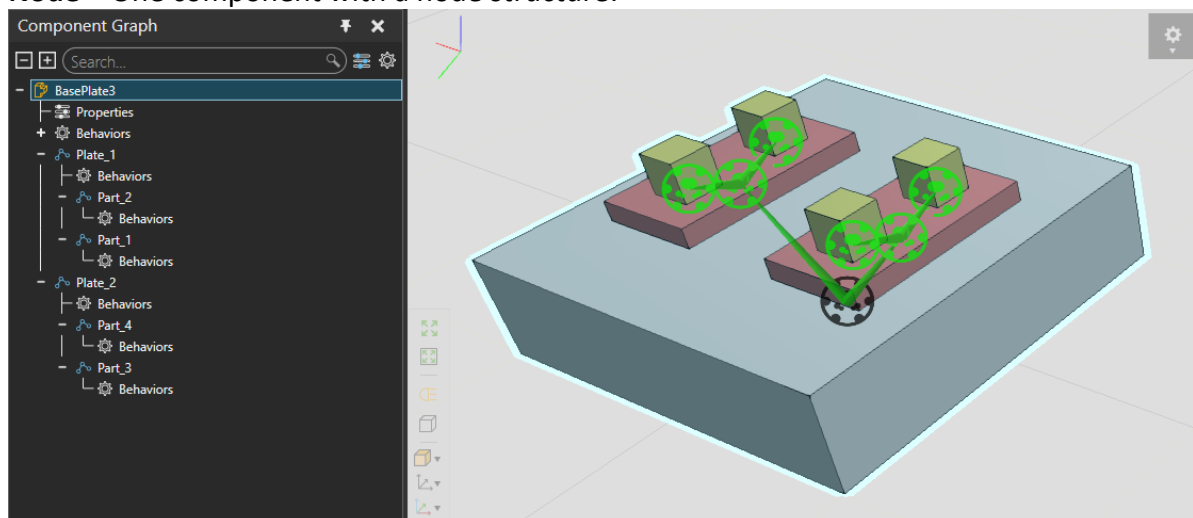


**Source:** Select the source structure to be either component, node or feature.

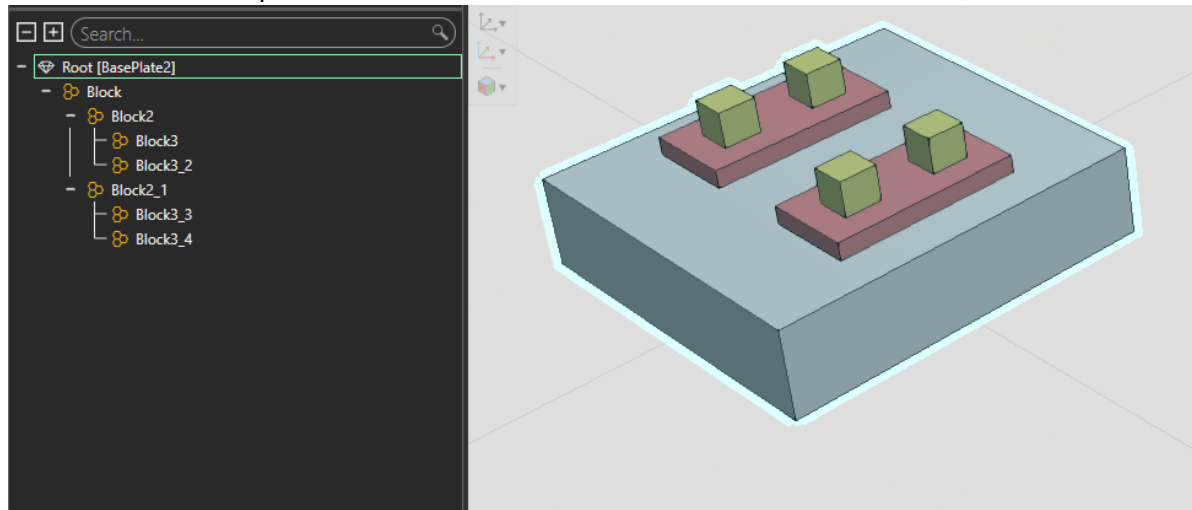
**Component** – Set of components attached to each other.



**Node** – One component with a node structure.



**Feature** – One component with one node and a feature structure.



**Find Similar Products By Name:** If checked add-on tries to find similar products based on component, node or feature names. For example components called “Part” and “Part #2” would be converted to same product type called “Part”. Another syntax for shared product is “Part” and “Part\_2”. Add-on only checks if the name is similar so geometries are not checked if they are the same. If this setting is unchecked every object will be converted to unique product type.

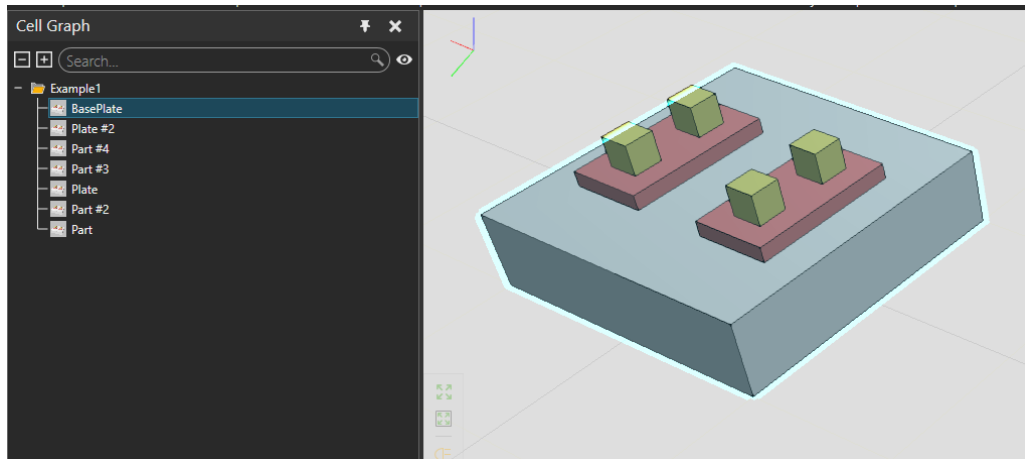
**Use Existing Product:** If checked add-on tries to find already existing products for source components, nodes or features. If existing product types is found that is used in the assembly and no new product type is created. Add-on only checks the name and not the geometry for the existing product type. If this setting is unchecked add-on will not use existing products but it will create new product types for source items and in case there are existing products with the same name new name with new running index is used for new product type.

**Create Assembly:** Creates product types and the assembly type for selected component. Make sure you have correct component selected before you run the add-on. For component mode select only the root component of the hierarchy.

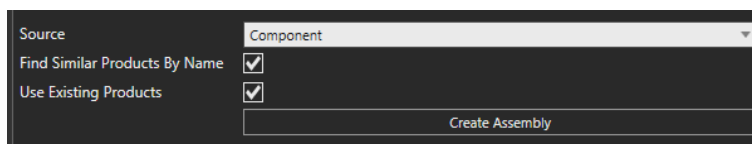
If you use node or feature as source add-on will modify the source component so that it extracts nodes or features into separate components and then uses those components for product types.

## Example

In the example case shown on the picture below we have root component “BasePlate”. It has two child components “Plate” and “Plate #2”. “Plate” has two child components “Part” and “Part #2”. “Plate #2” has also two child components “Part #3” and “Part #4”.



We run the add-on while having root component “BasePlate” selected. We use component as source and also enable “Find Similar Products By Name” to group components with similar names to use the same product type. “Use Existing Products” doesn’t matter in this case because there are no existing products in our layout yet.



After running the add-on we get 3 product types and one assembly shown in the following picture. New flow group was also created. Each source component creates one step on the assembly.

