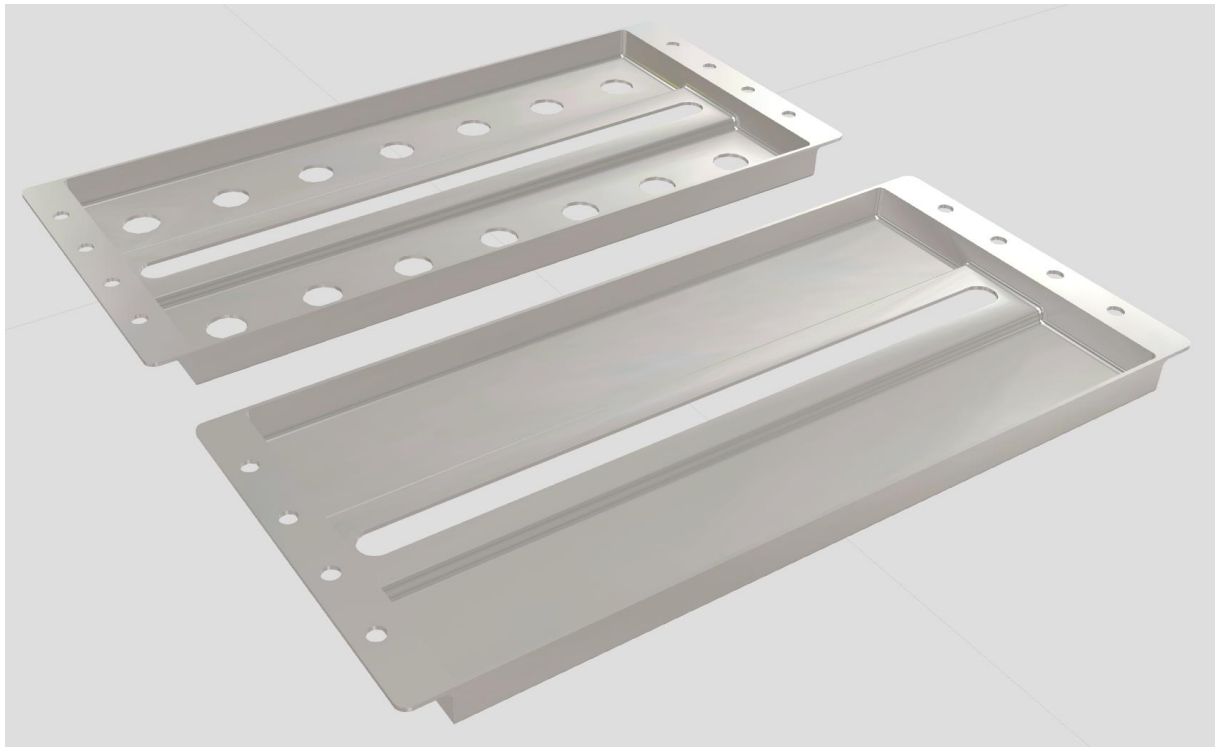


Boolean Feature

Visual Components 4.5 | Version: Month 07, 2022



In this tutorial, you will learn about the new Boolean feature introduced in Visual components 4.5. The outcome of this tutorial is for the user to understand how the Boolean feature can be used to make desired changes in components.

This document includes the following topics:

- Component hierarchy
- Boolean feature

Difficulty Level: Beginner

Support

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Visual Components Forum

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1. Component hierarchy

The component hierarchy shows the features of the model ranked on their role in the model, so the further down the hierarchy, the smaller the proportion of the model you are affecting. This hierarchy is represented by a root node and sub-nodes, which are the containers of all features and sub-features. Features can be nested with one another by using a drag-and-drop action in the node feature tree. Generally, features are nested in an operation feature, and thereby the operation is applied to those sub-features.

1.1. Operation features

Operation features, as the name suggests, operate on a primitive feature. This means for example cloning, mirroring, or other transformations to manipulate your final model in the desired way.

1.2. Primitive features

A primitive feature is a visual representation of a model, they represent basic shapes, for example, blocks and cylinders.

2. Boolean Feature

The Boolean feature works on two groups of primitive features, where the top group is the base, and the bottom feature operates on the top one. The Boolean feature has three options, namely: Union, Subtraction, and Intersection.

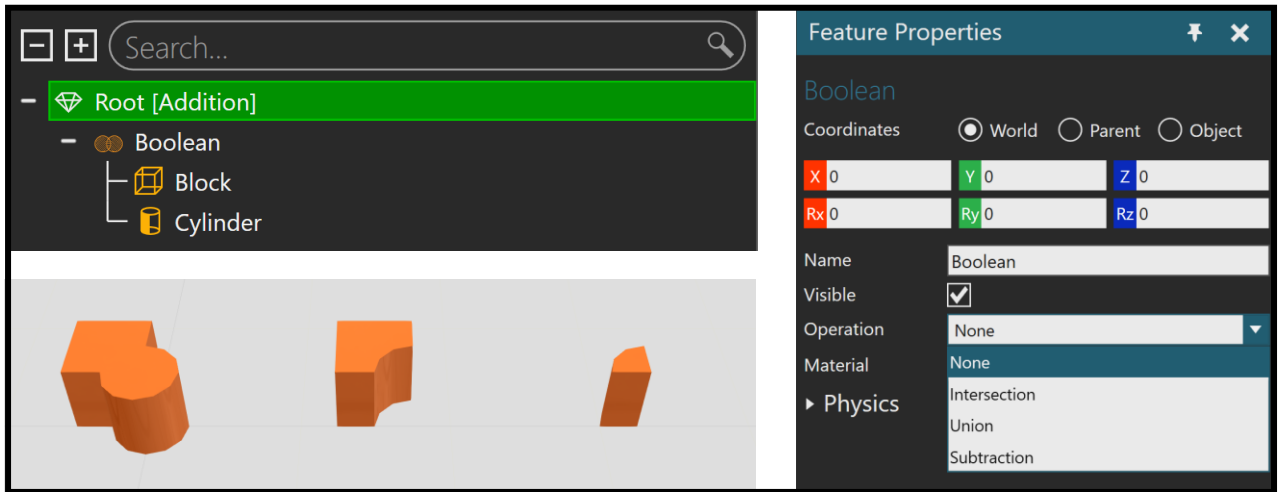


Figure 1 Union | Subtraction | Intersection

2.1. Example usage

As earlier stated, the Boolean feature also can be used on groups of primitive features (as shown in Figure 3) to make hole patterns.

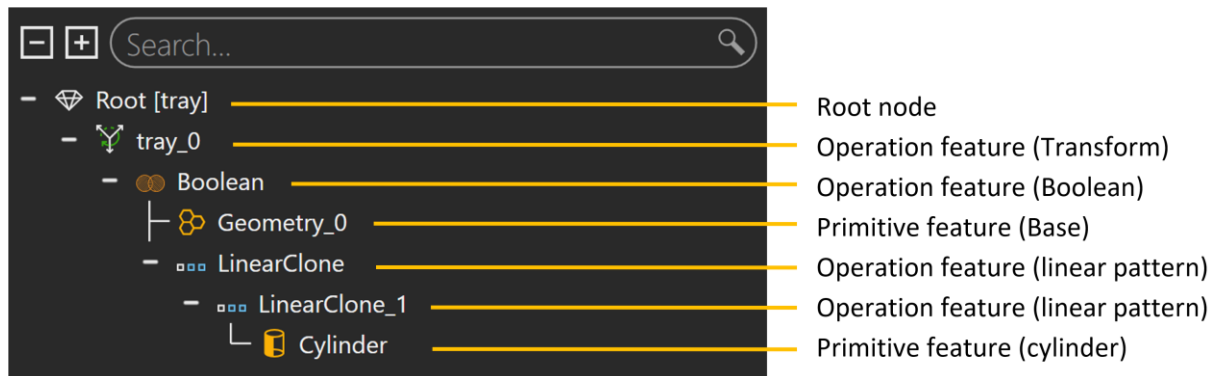


Figure 2 Component hierarchy of an example of the Boolean feature

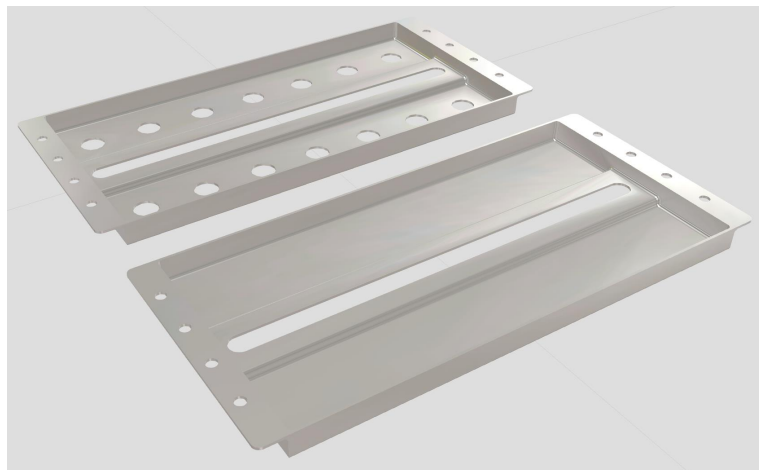


Figure 3 On top; is a tray with holes (made with the Boolean feature), the original tray below.