

Rhino3D Grasshopper: Retrieve Data Tree Branch

Description

In Grasshopper you can retrieve branches from data trees with Tree Branch. This works with a single branch and also with a set of branches.

For a good introduction on Grasshopper's Data Trees read this page from TU Delft.

New to Grasshopper? I suggest you read this article in the first place.

Need more learning resources? Check this out.

Disclaimer

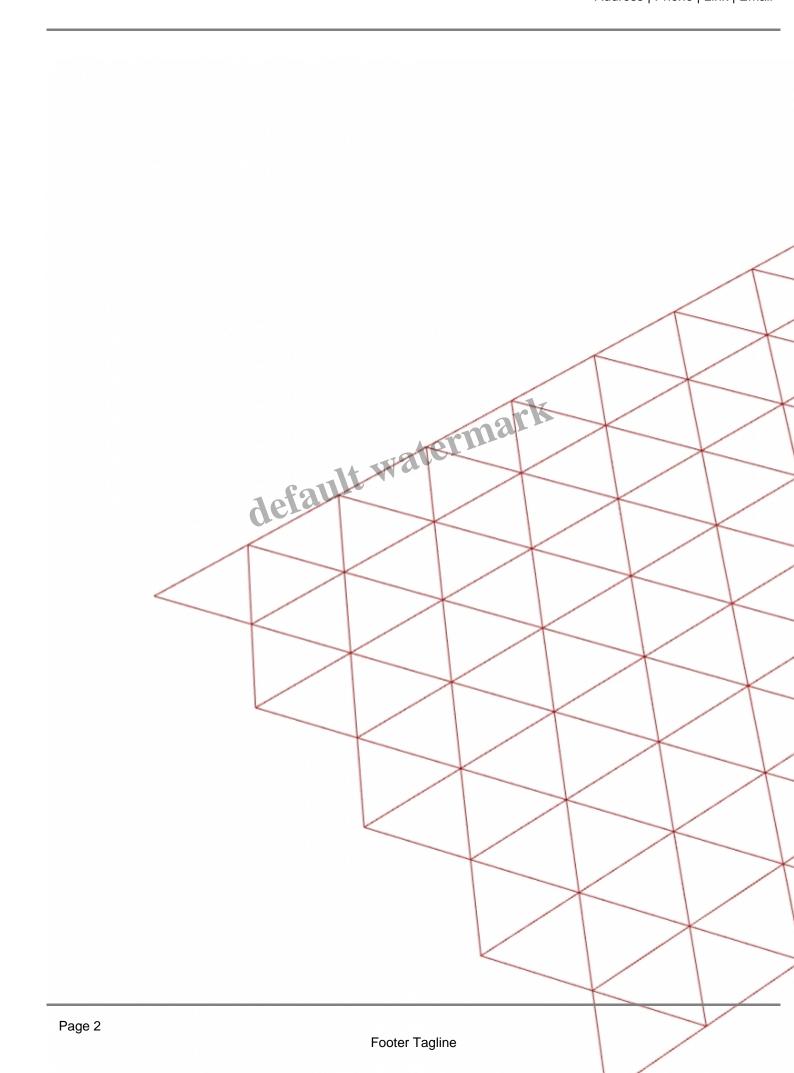
As you will see in my screenshots most components carry a title above them displaying their name. This is because I use a plugin called *Bifocals*.

Also you'll see my Grasshopper tab titles abbreviated because there's not enough horizontal space. I will mention the titles in full in my script though.

Branch and Path mean the same thing. That's Grasshopper data tree jargon. Put in other words, branch equals path.

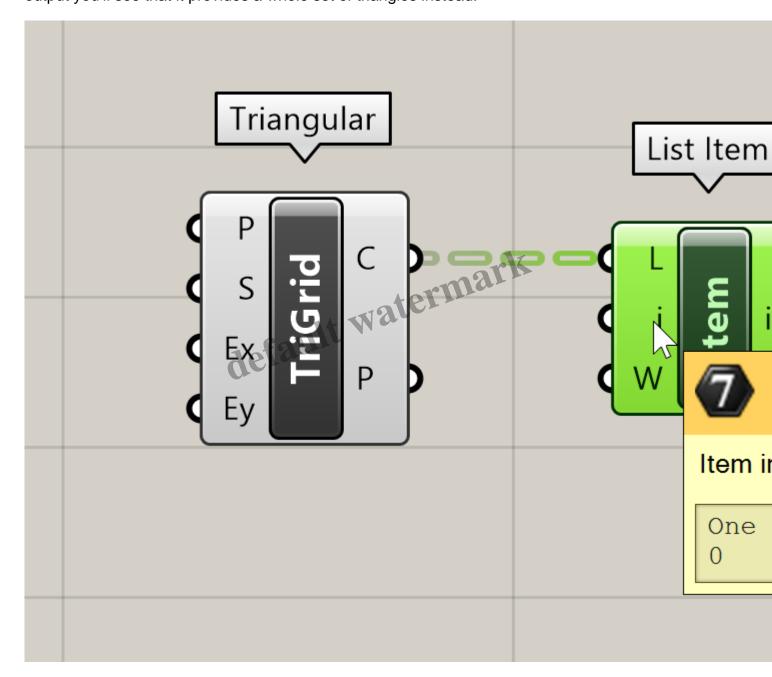
Create a Triangular Grid

Let's take a *Triangular* grid pattern as an example:



List Item

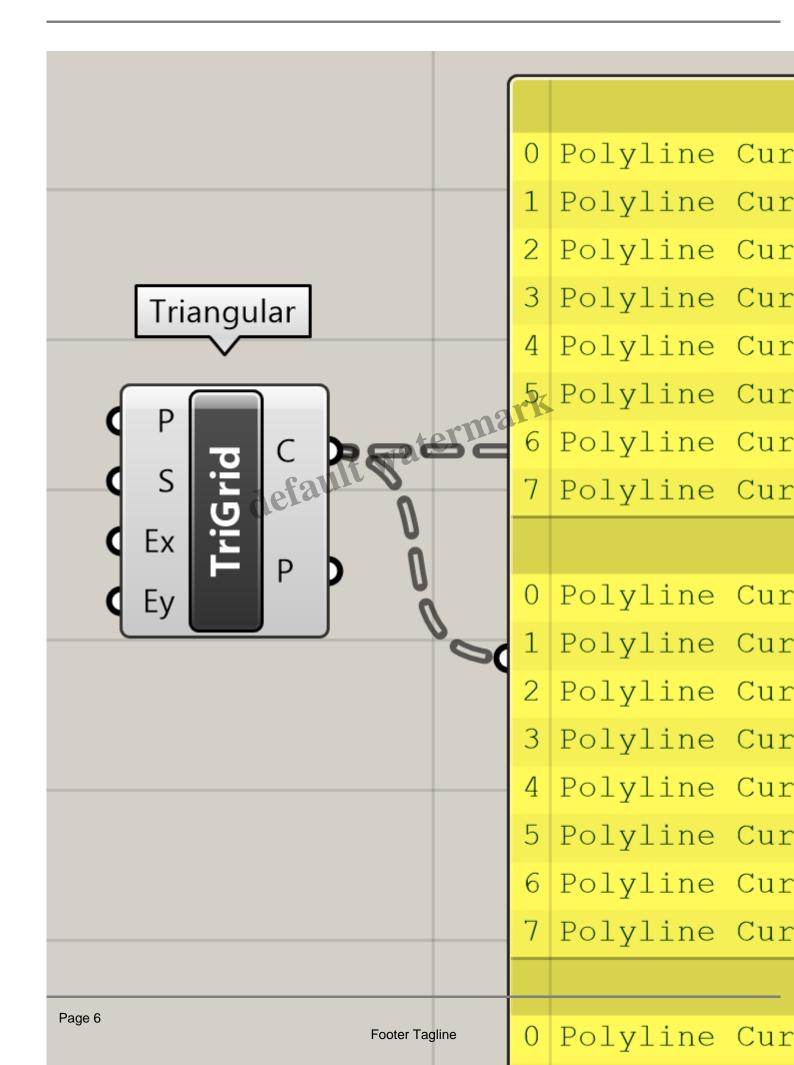
Let's assume you want to retrieve one of the triangles. When you connect a *List Item* to *TriGrid*'s output you'll see that it provides a whole set of triangles instead:



default watermark

A *Panel* reveals that indeed *List Item* extracts not 1 element (= 1 triangle) but 1 out of each branch of our *TriGrid* data tree:





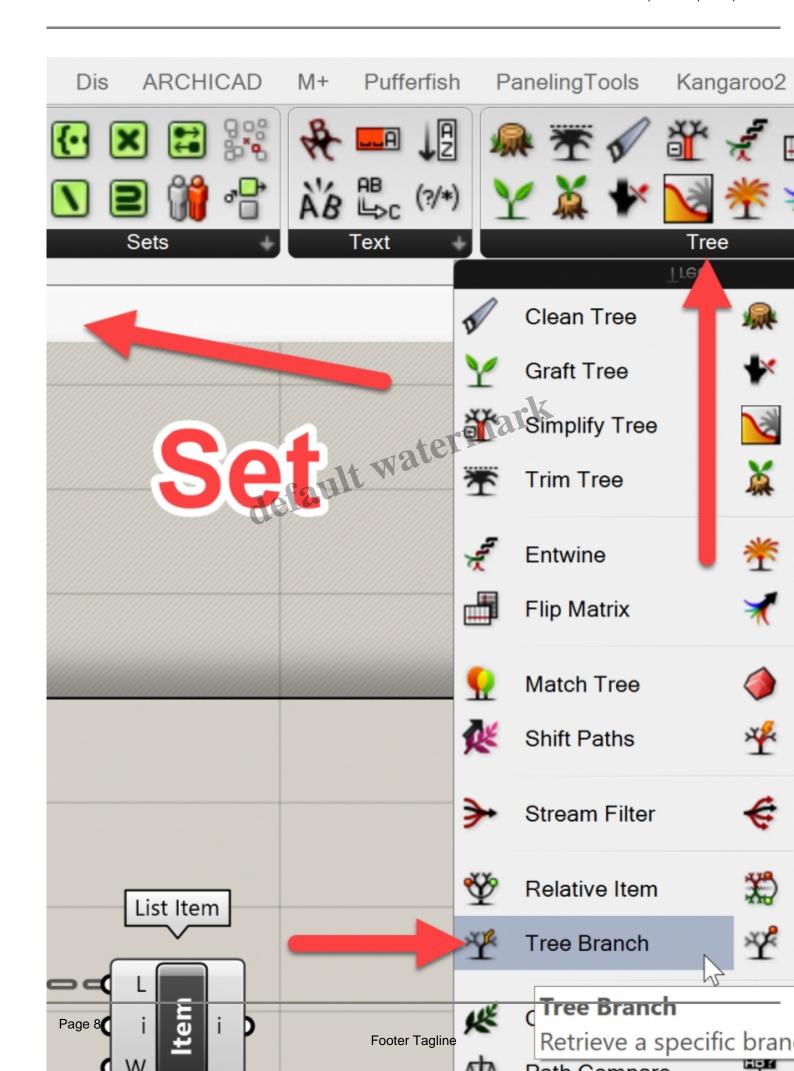
(The number of items in each branch differs according to *TriGrid's* input.)

As you see, List Item by itself doesn't work here.

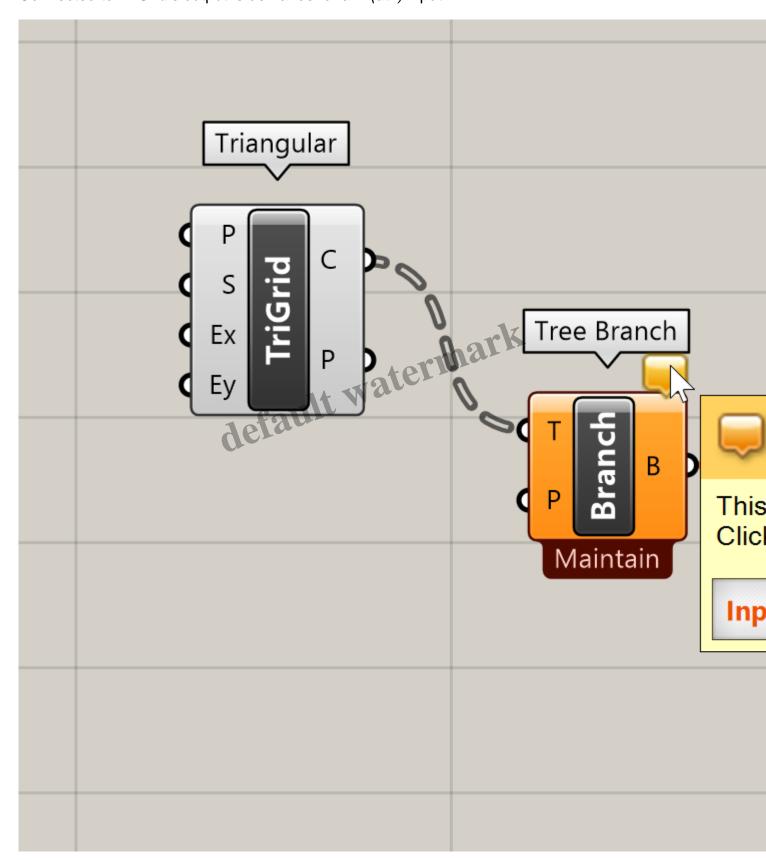
Tree Branch

We want to single out 1 branch of our tree. To do this, we choose Tree Branch:

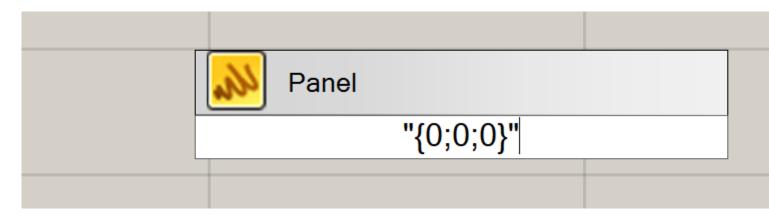




Connected to TriGrid's output is demands for a P (ath) input:

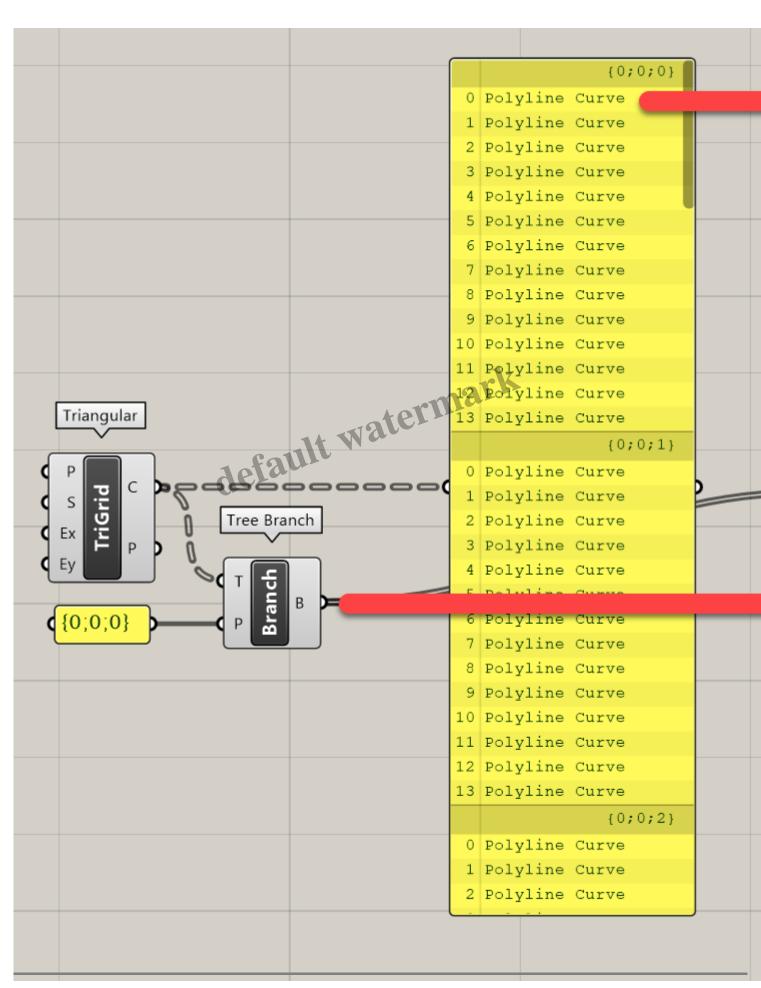


Double-click on the canvas, write "0;0;0" and hit Return:



Feed this panel into *Tree Branch's P* input:

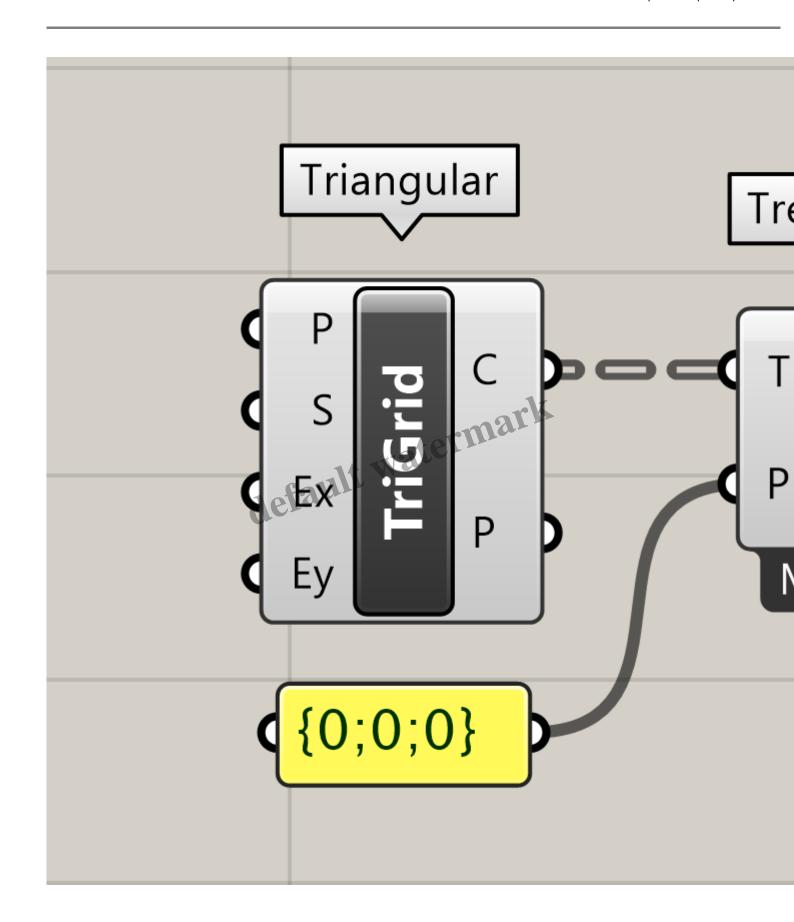


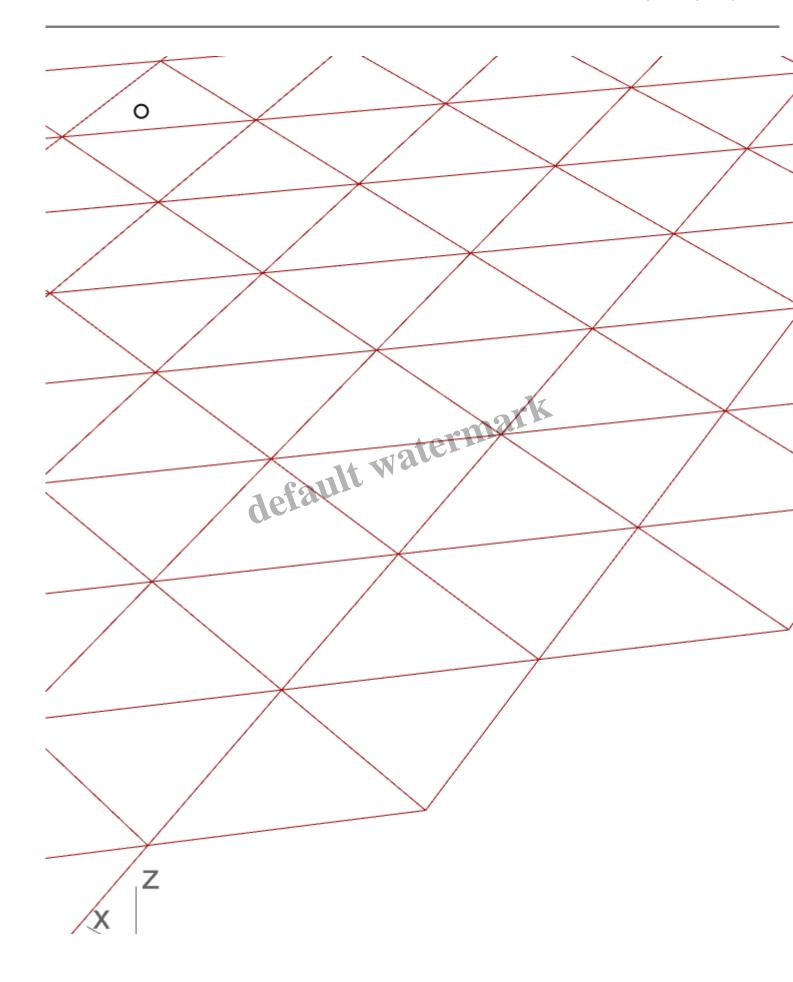


As you see *Tree Branch* retrieves 1 branch (in my example the first of them).

When you connect your *List item* to *B* output you will have extracted exactly 1 triangle:



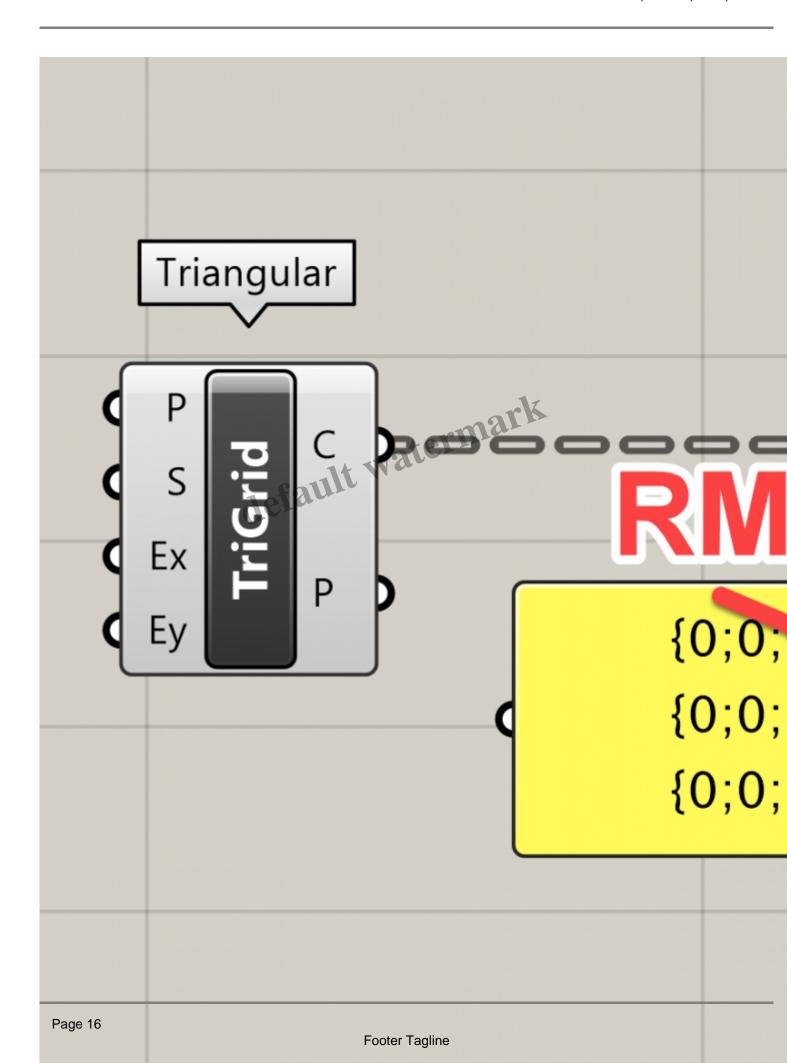




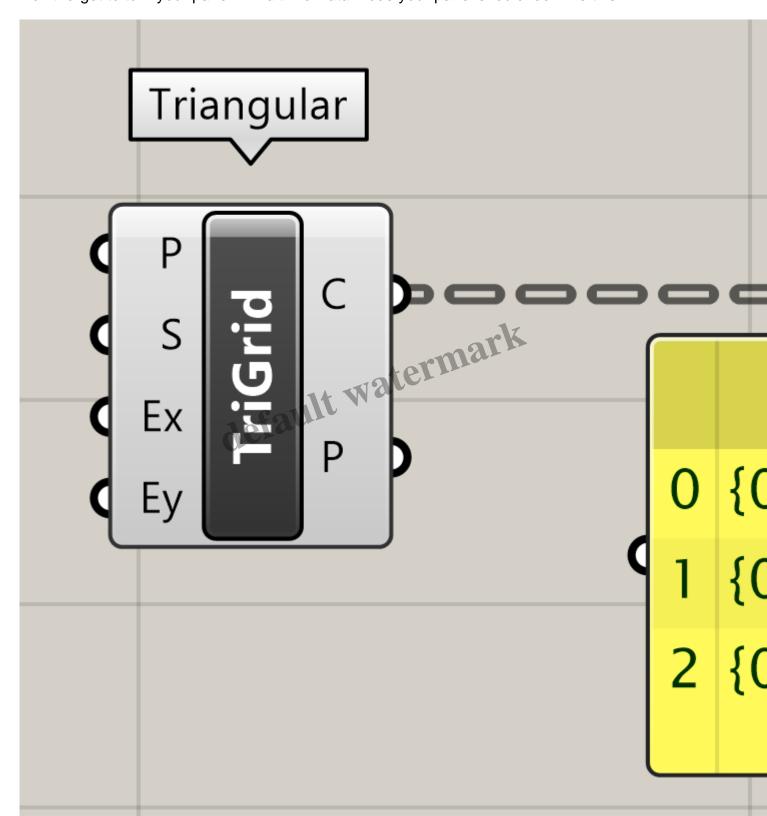
Extract Set of Branches

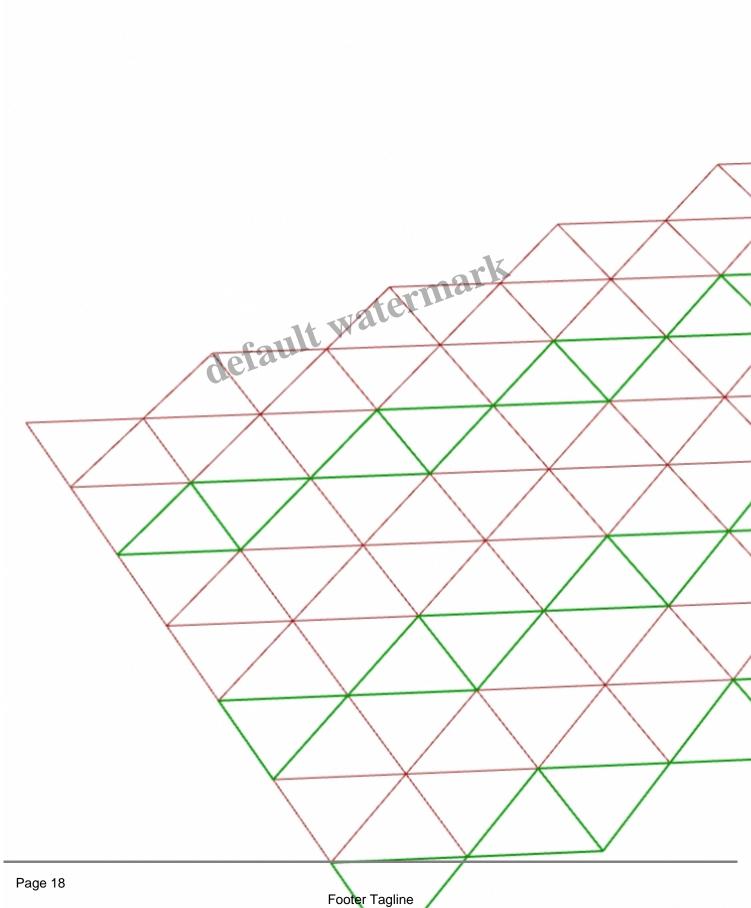
To retrieve more than one branch, double-click your text panel feeding *Tree Branch's P* input and simply add more paths:





Don't forget to turn your panel in Multiline Data mode your panel should look like this:





For a good introduction on Grasshopper's Data Trees read this page from TU Delft.

New to Grasshopper? I suggest you read this article in the first place.

Need more learning resources? Check this out.

© Horst Sondermann 2019 // All Rights reserved

Category

1. Rhino/Grasshoppper

Tags

- 1. Data Tree
- 2. Extract Branch

Date Created November 2019 Author hsondermanncom

