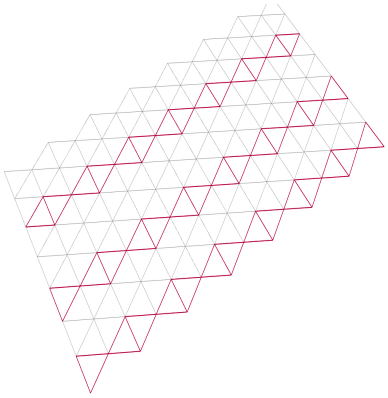


Rhino3D Grasshopper: Retrieve Data Tree Branch

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

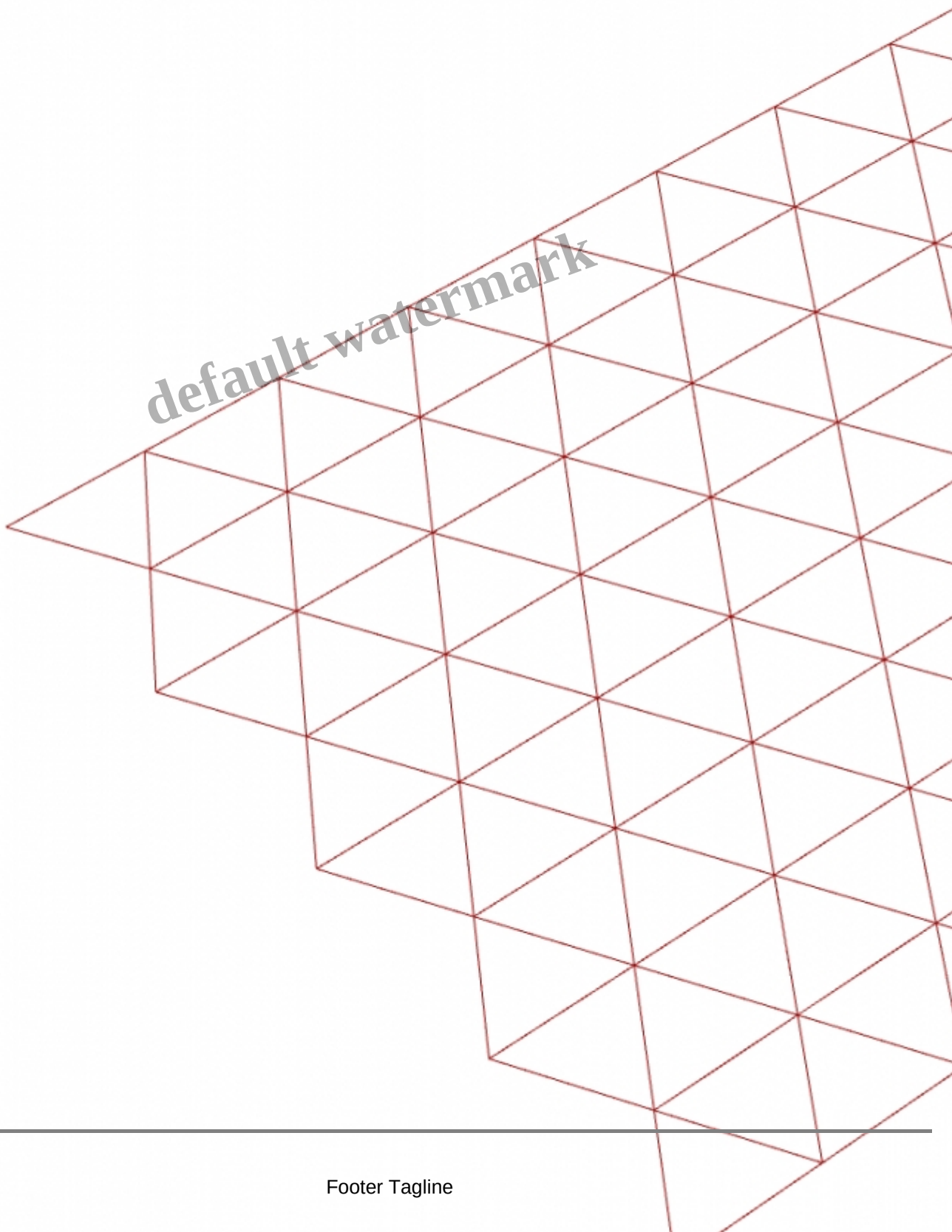
As you will see in my screenshots most components carry a title above them displaying their name. This is because I use a plugin called *Bifocals*.

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*.

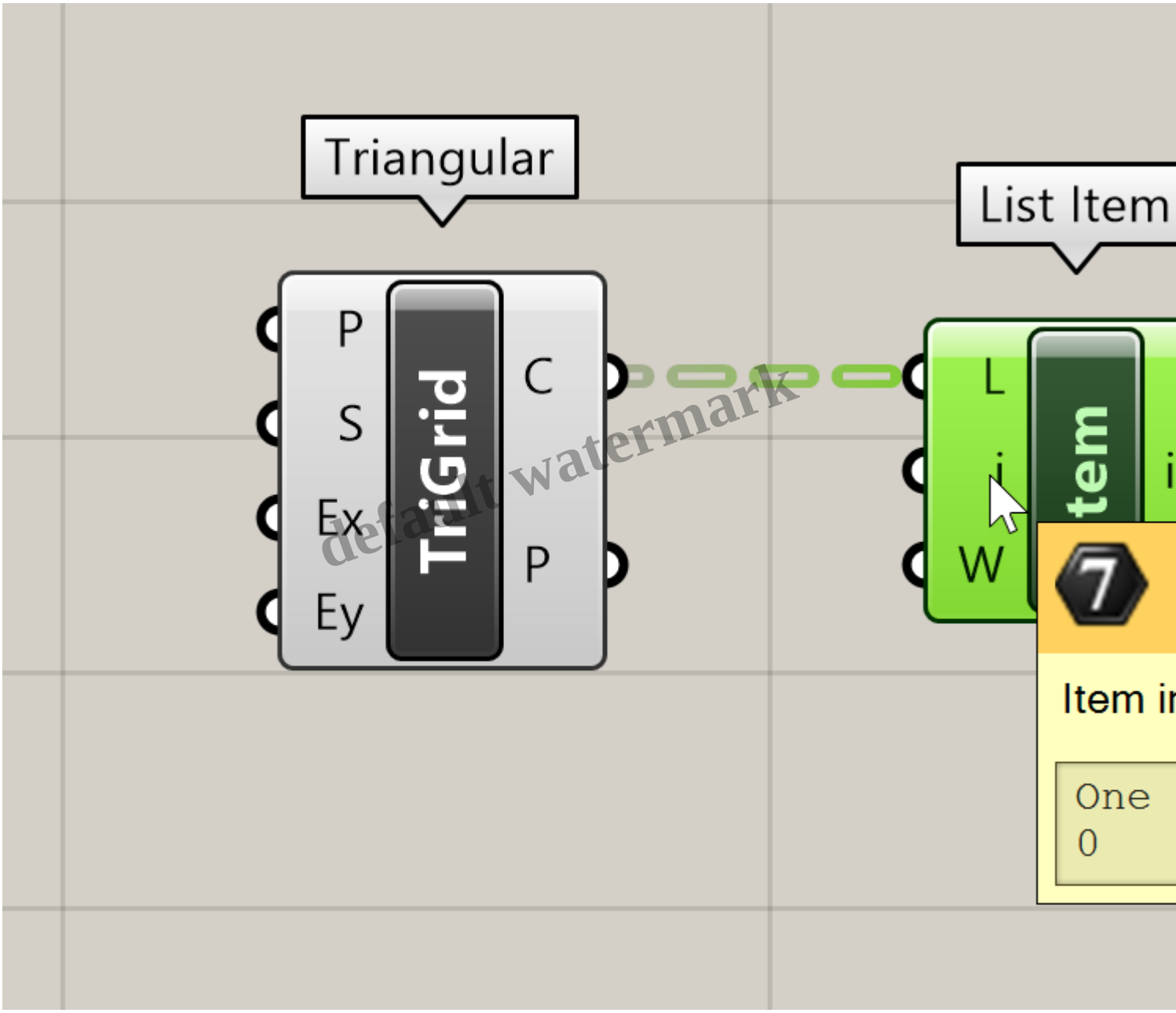
Create a Triangular Grid

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

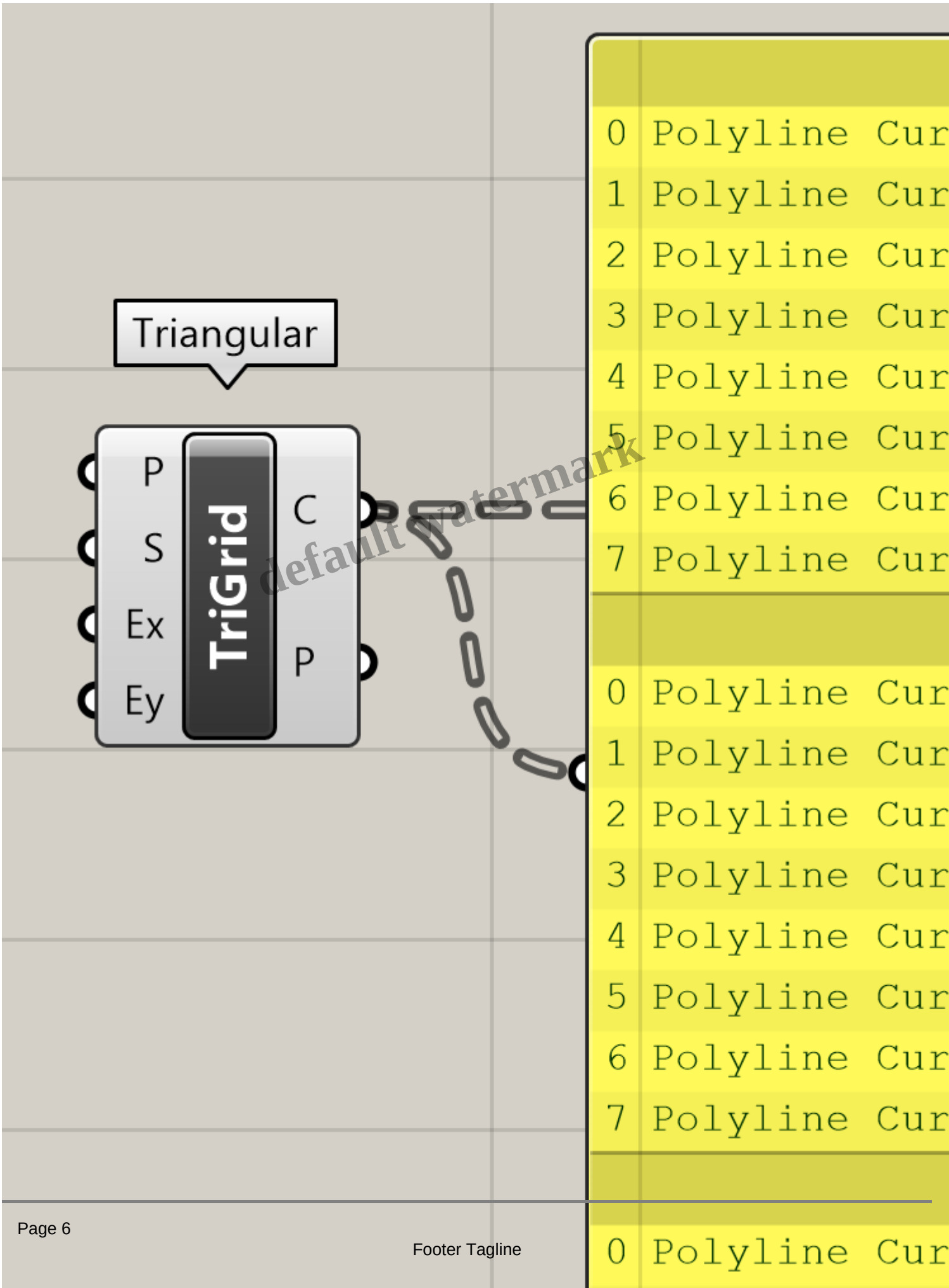


List Item

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:



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

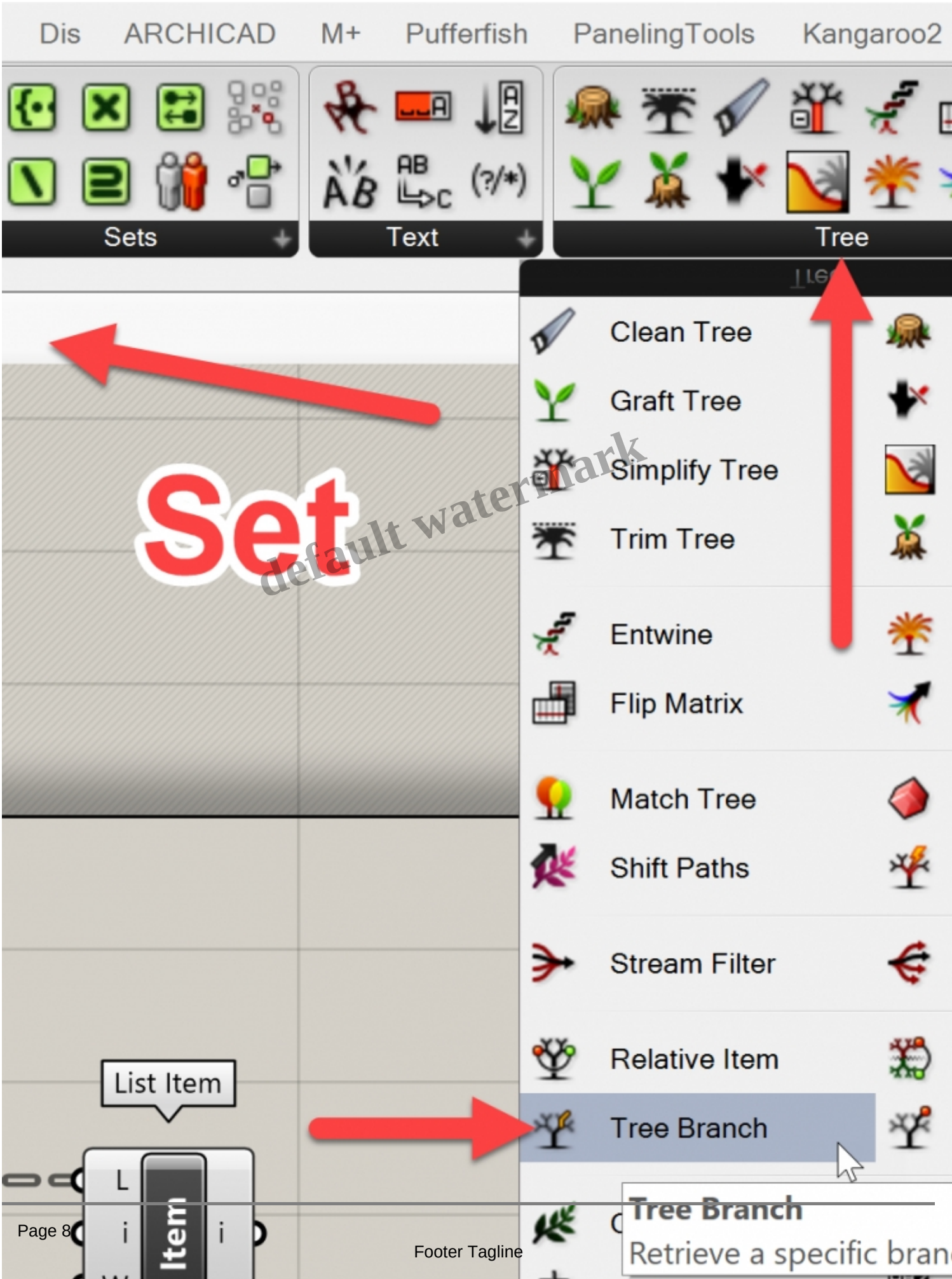


(The number of items in each branch differs according to *TriGrid's* input.)

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:*


Dis
ARCHICAD
M+
Pufferfish
PanelingTools
Kangaroo2
Sets
Text
Tree
Clean Tree
Graft Tree
Simplify Tree
Trim Tree
Entwine
Flip Matrix
Match Tree
Shift Paths
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Tree Branch
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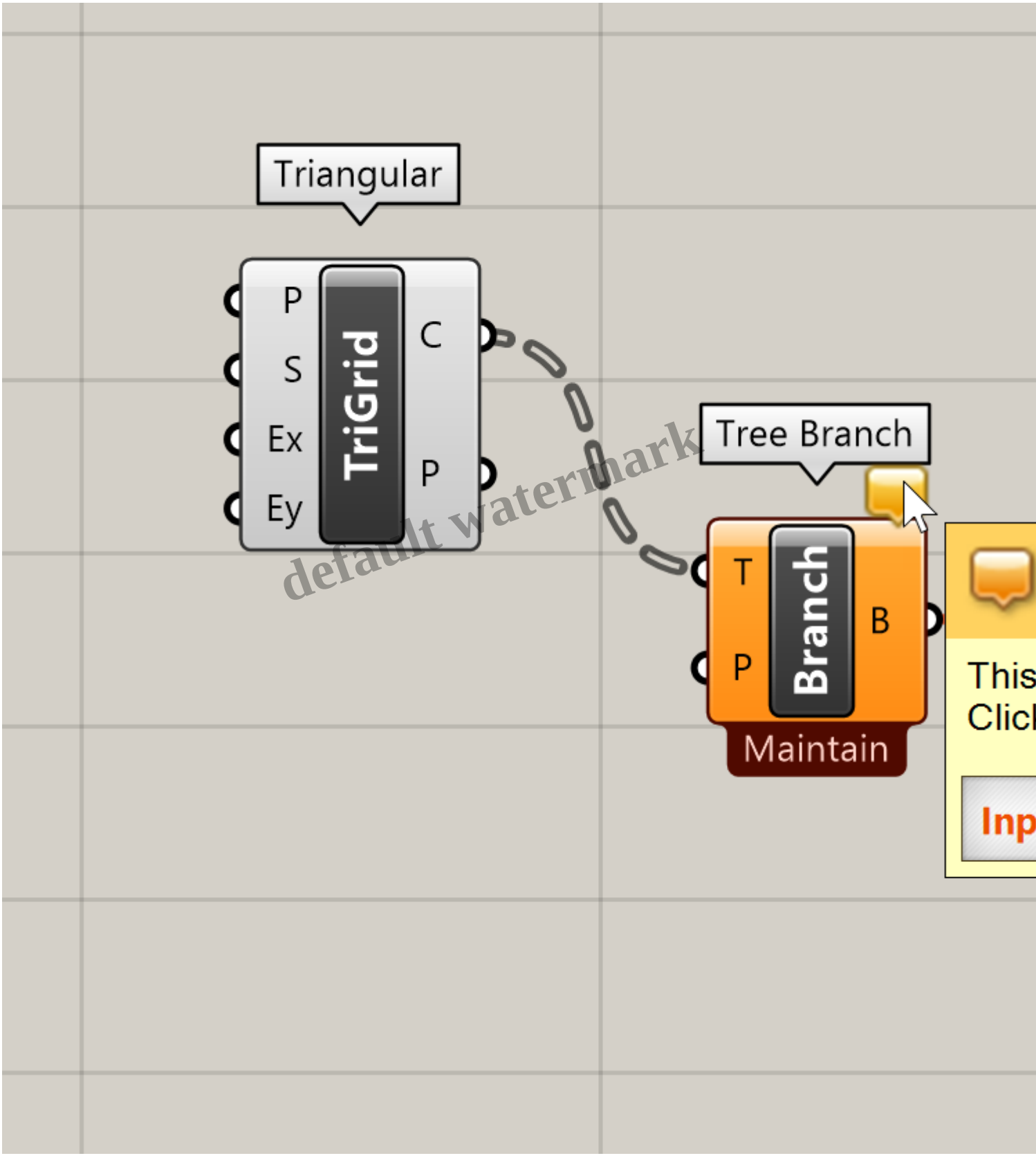
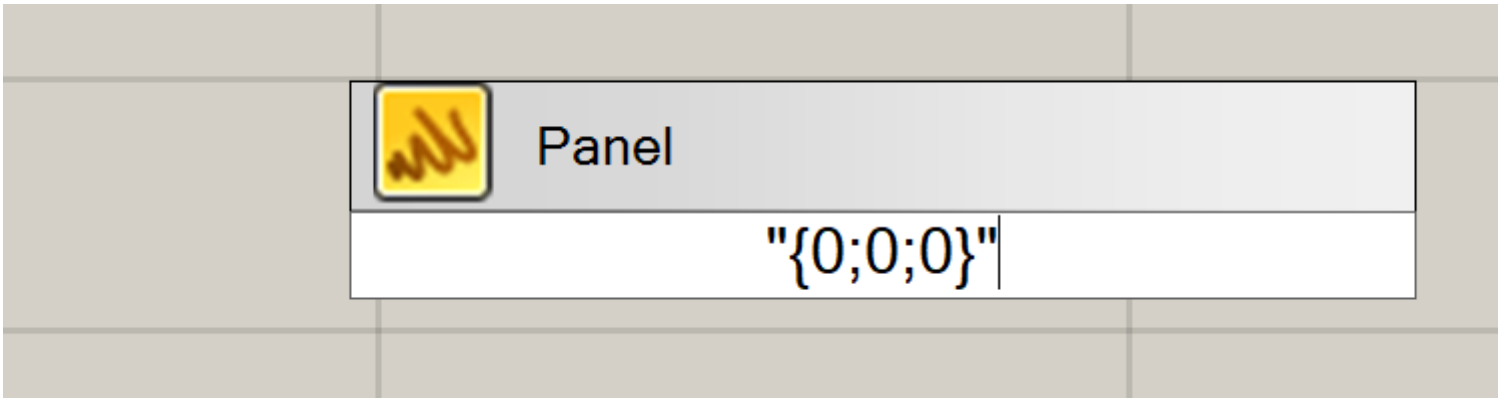
Tree Branch
Retrieve a specific bran

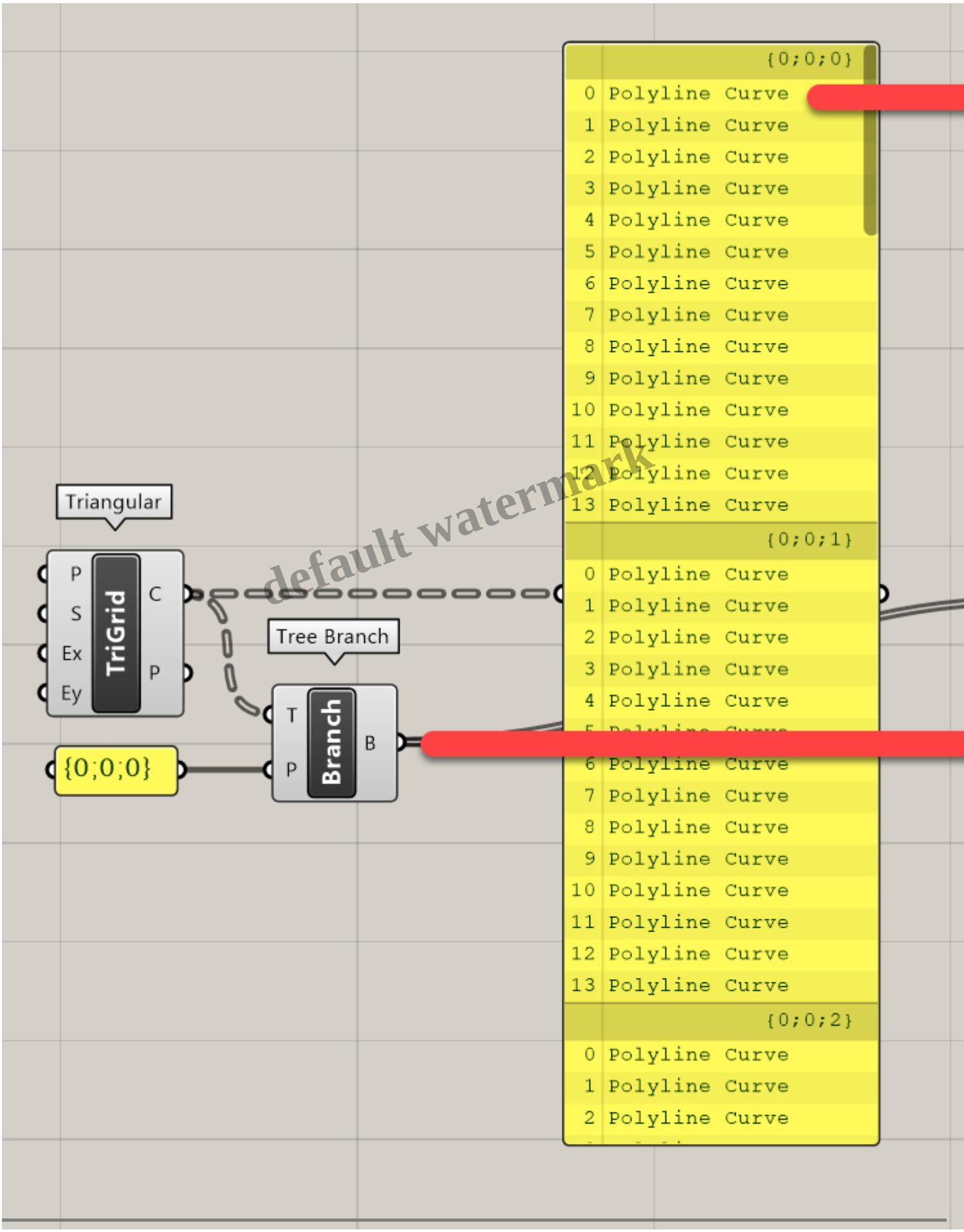
Connected to *TriGrid's* output is demands for a *P (ath)* input:



Double-click on the canvas, write *“0;0;0”* and hit *Return:*

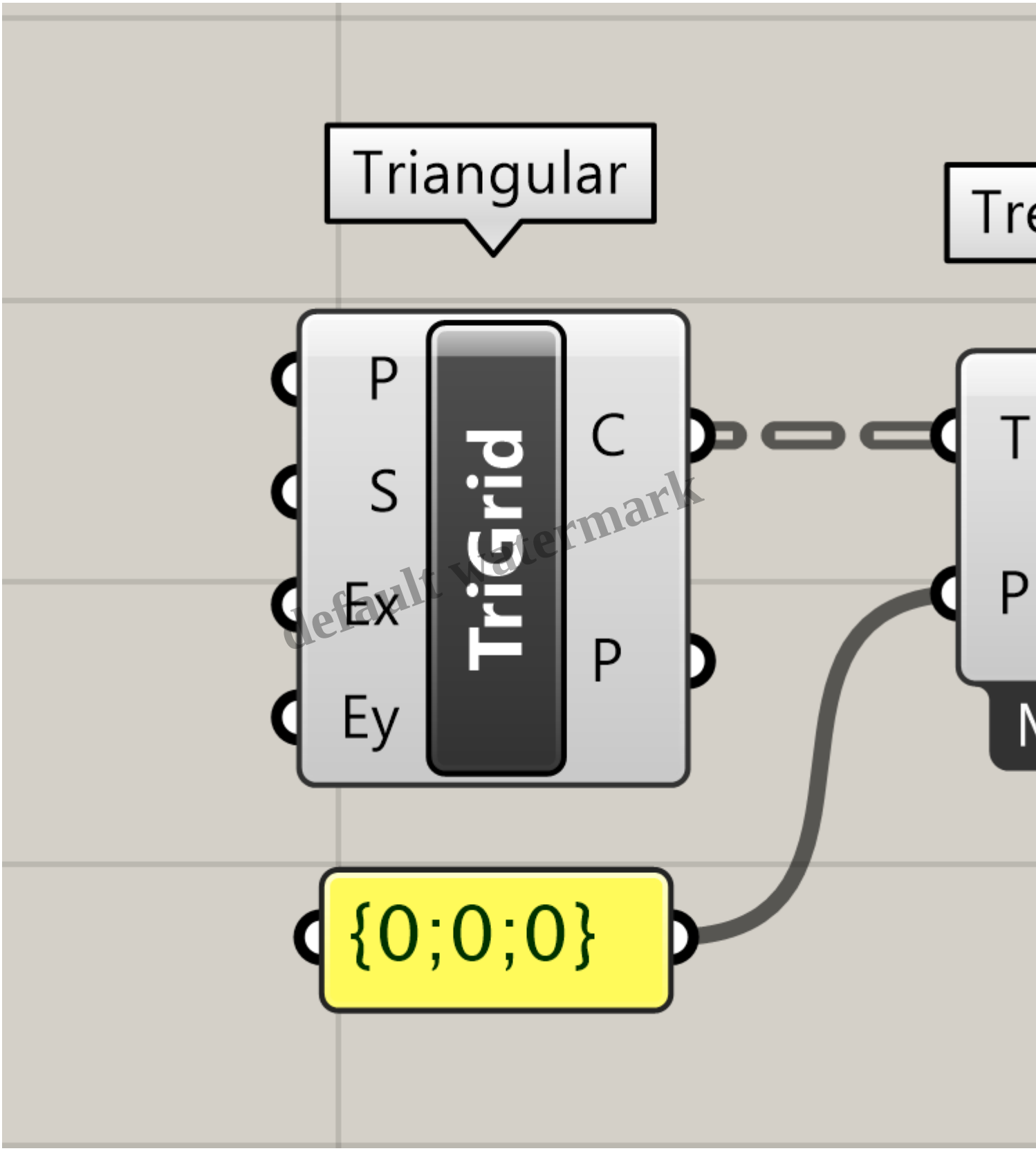


Feed this panel into *Tree Branch’s P* input:



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:


Triangular
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S
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Ey
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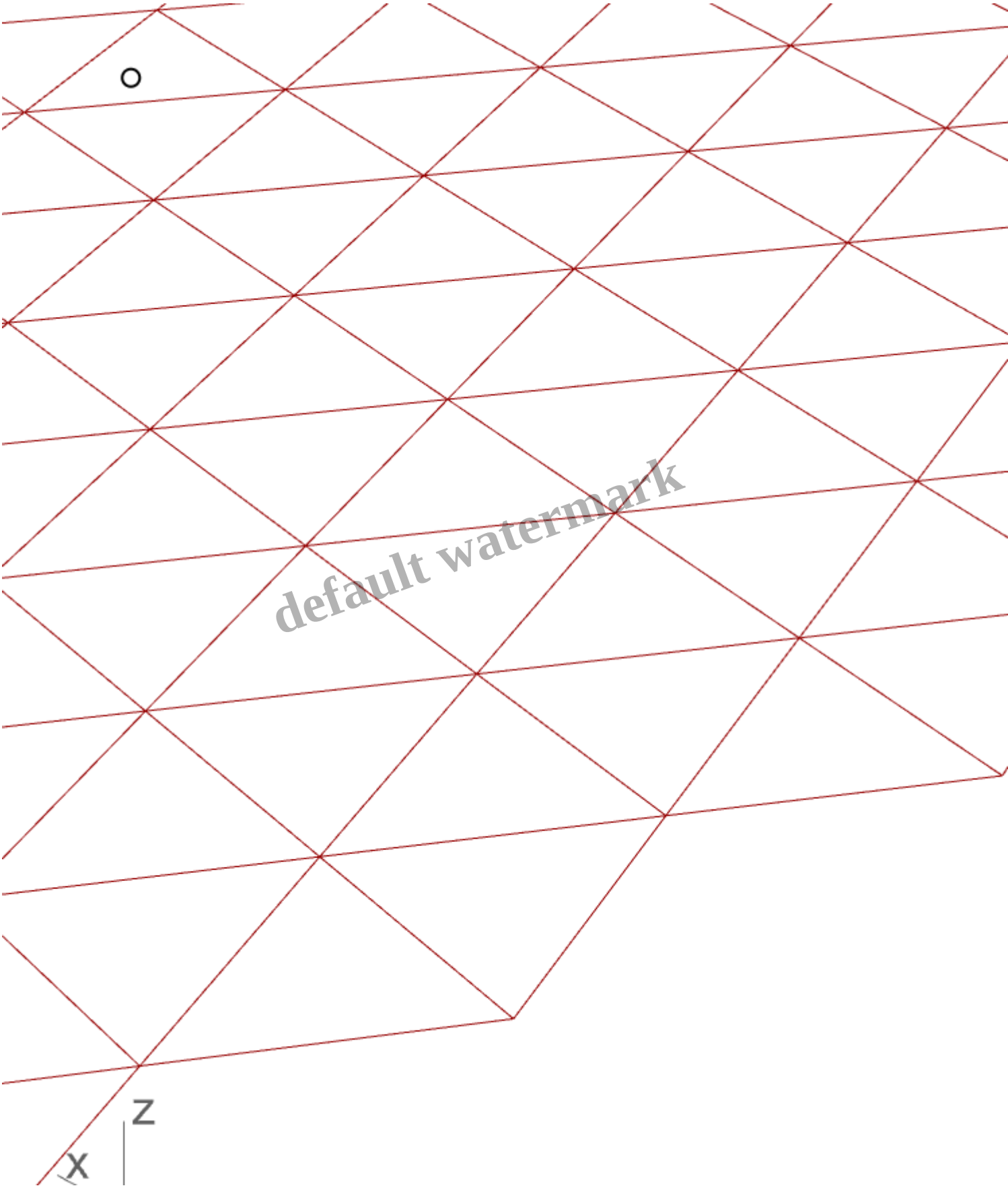
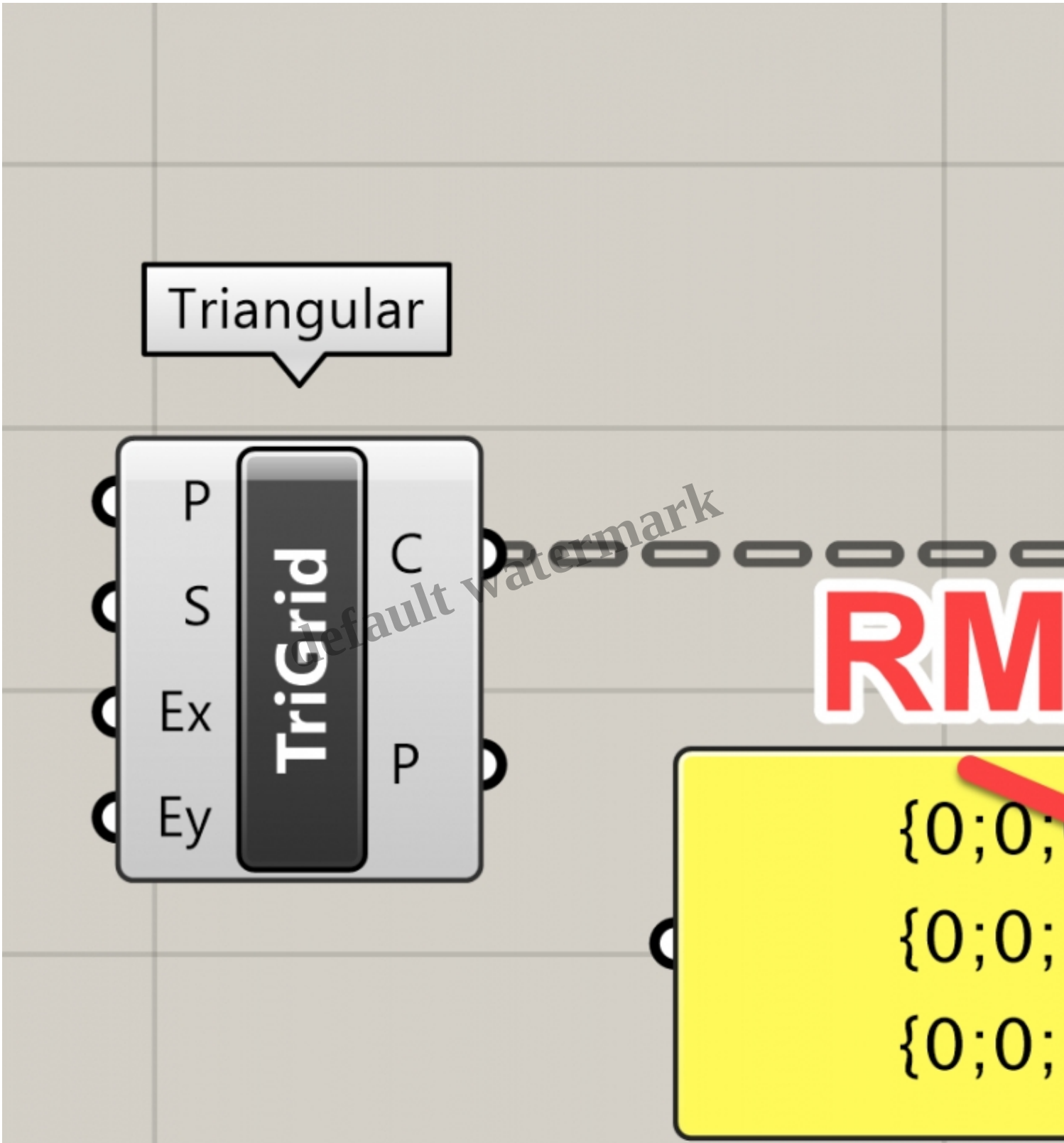
{0;0;0}
default watermark

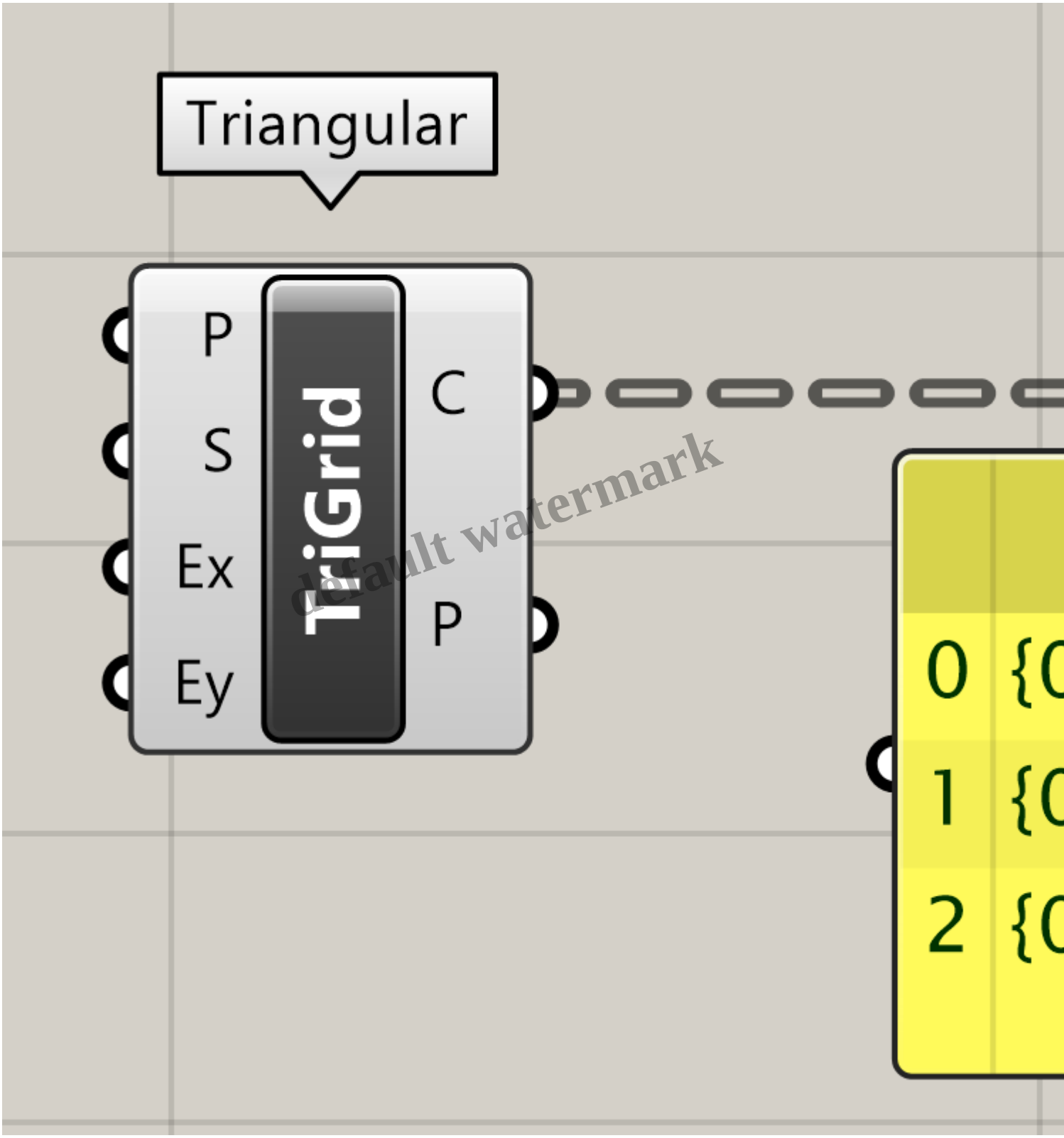


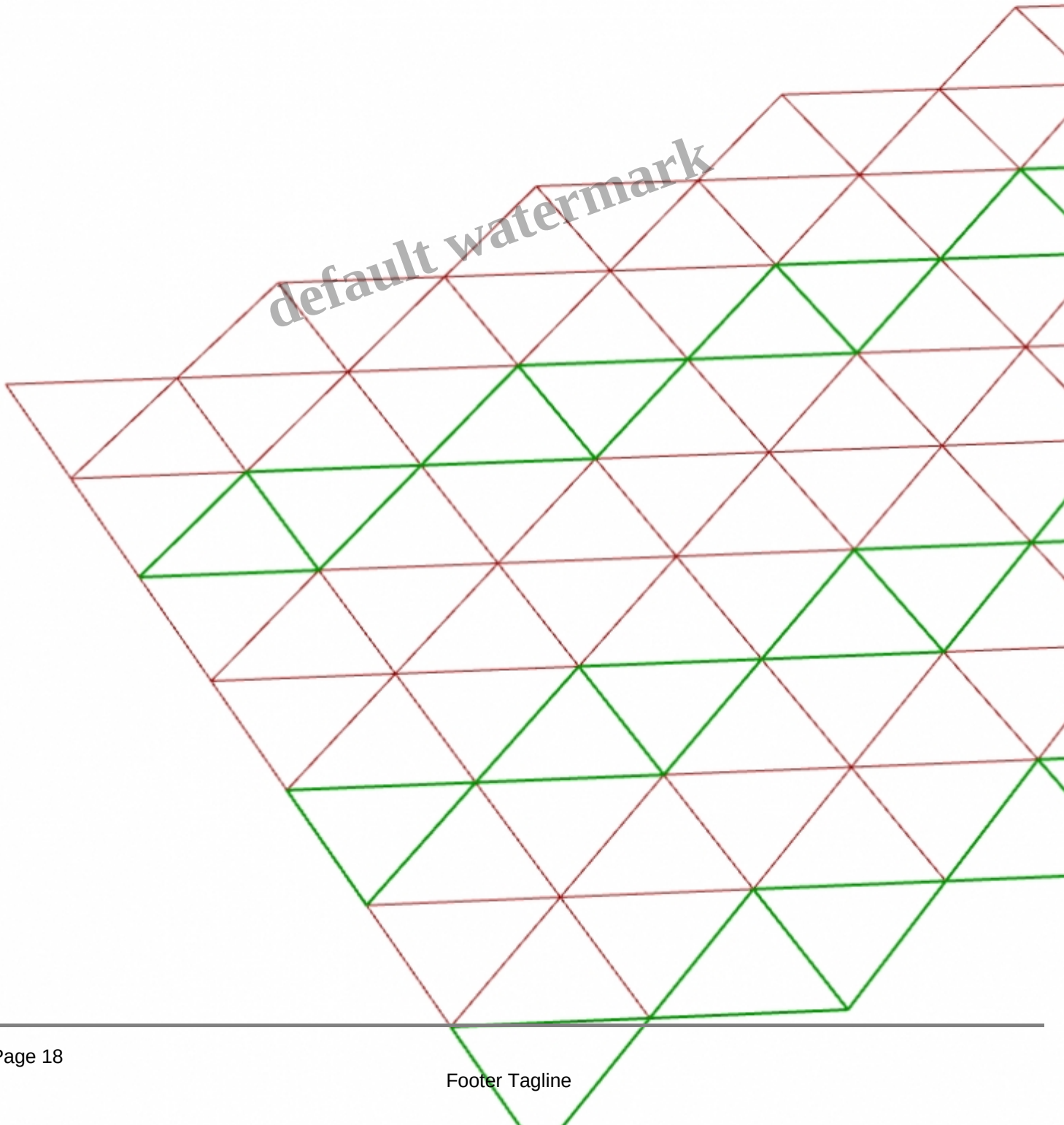
Extract Set of Branches

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:




default watermark

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Category

1. Rhino/Grasshoppper

Tags

1. Data Tree
2. Extract Branch

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Author
hsondermanncom