[05]

List Lacing

Processing data effectively

THE PRESENTER

Jacob Small
Designated Support Specialist: Generative Design & BIM

@JacobWSmall

SAFE HARBOUR

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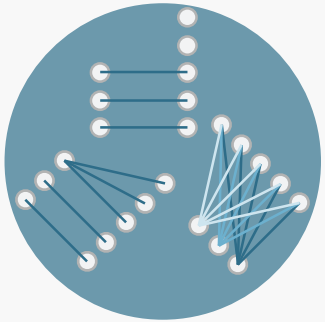
AGENDA



01.

15 Minute Presentation:

List Lacing

02.

Questions & Answers

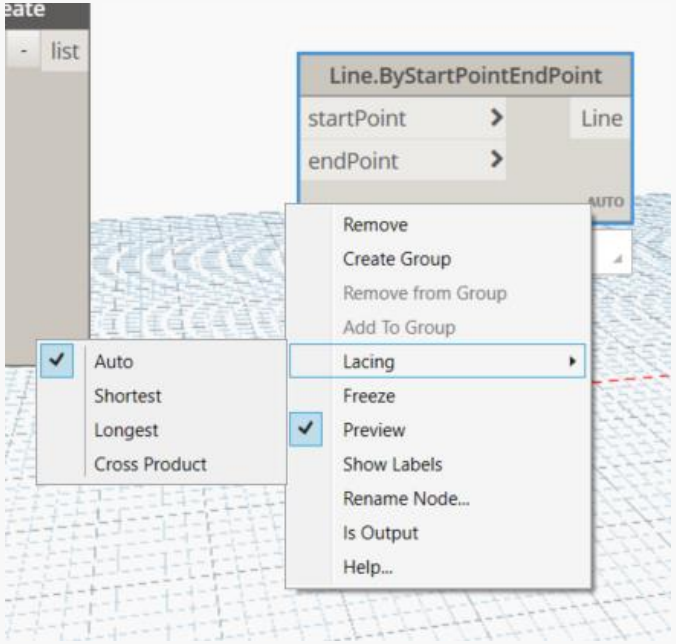
03.

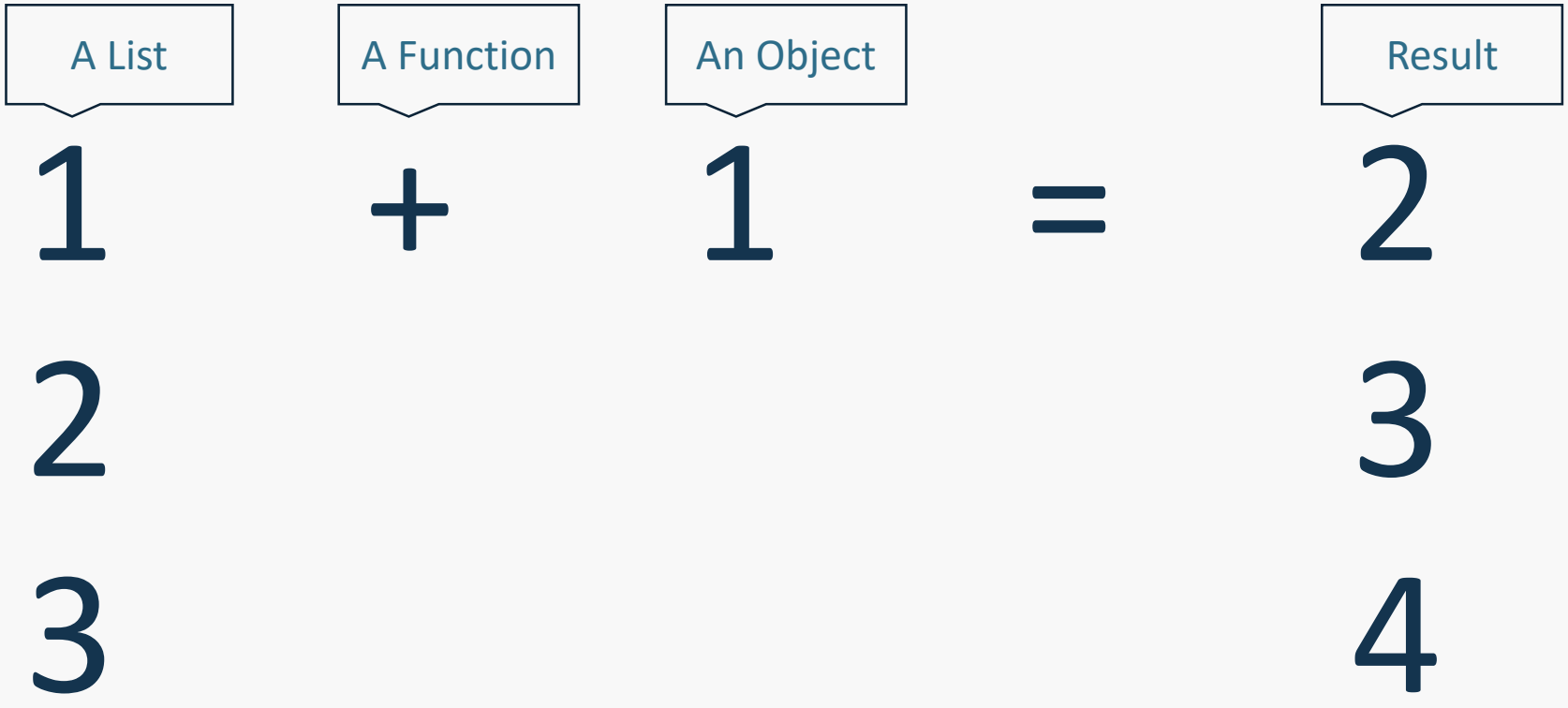
Bonus:

List Levels

Lacing

- Each node is a FUNCTION and can iterate over a list of input, this is how Visual Programming handles “for loops”
- If the function has multiple inputs, the lacing strategy on the node is used to combine the input in an understandable order
- The lacing affects the structure of the output



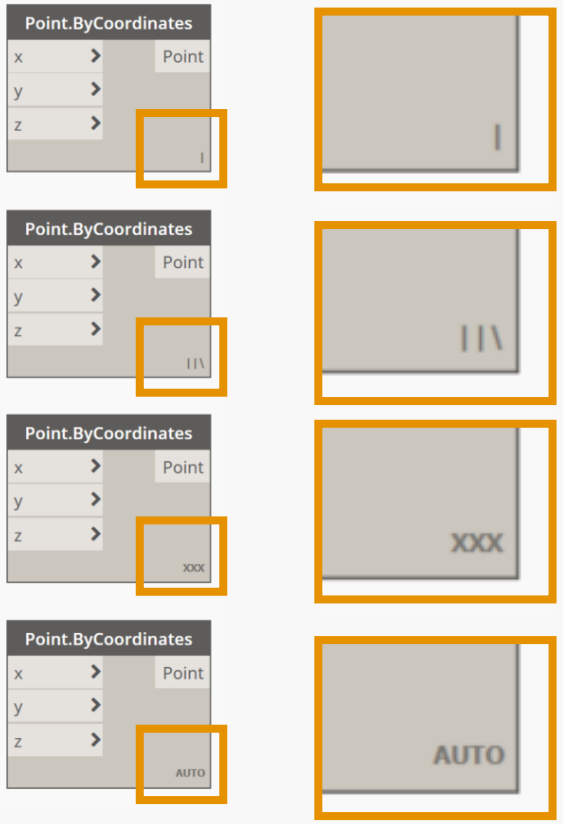


A List	A Function	A List		Result
1	+	1	=	2
2		2		4
3		3		6

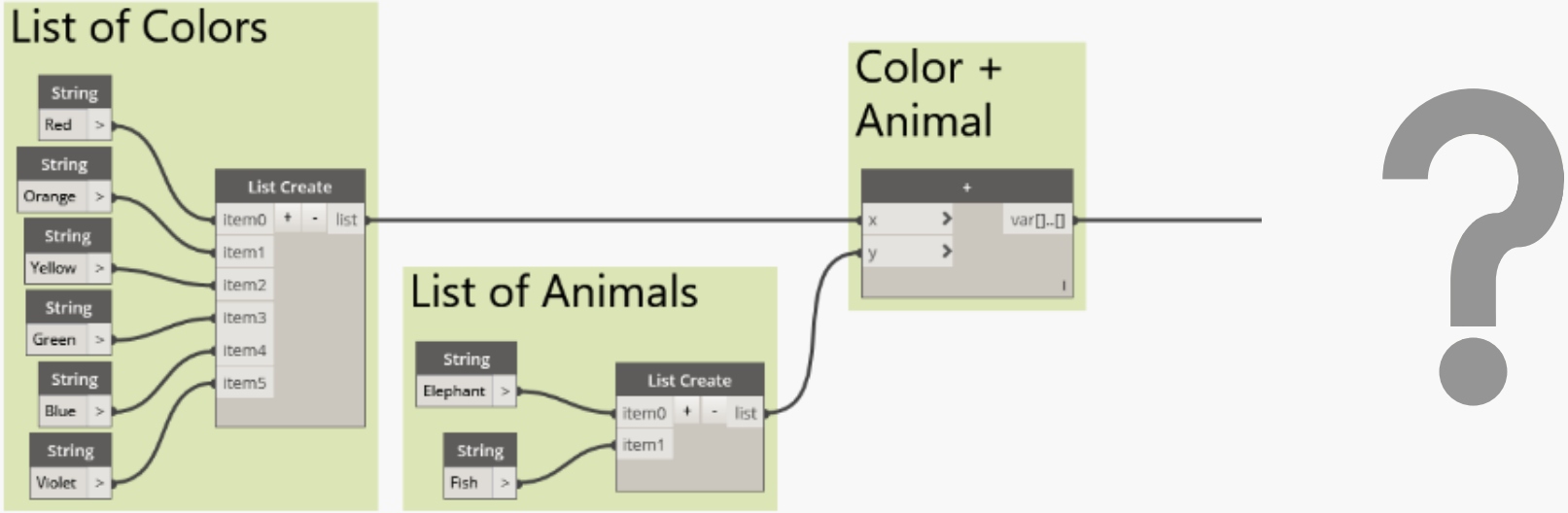
A List	A Function	A List		Result
1	+	1	=	2
2		2		4
3				???

Lacing

- Shortest
  - Matches index to index, discarding items from the longer list.
- Longest
  - Matches index to index and reuses the last item in the shorter list.
- Cross Product
  - Matches every item in list one to every item in list two.
- Automatic
  - Applies shortest lacing, but ‘pushes’ single items as if longest lacing were selected.
  - This is the default!



Lacing



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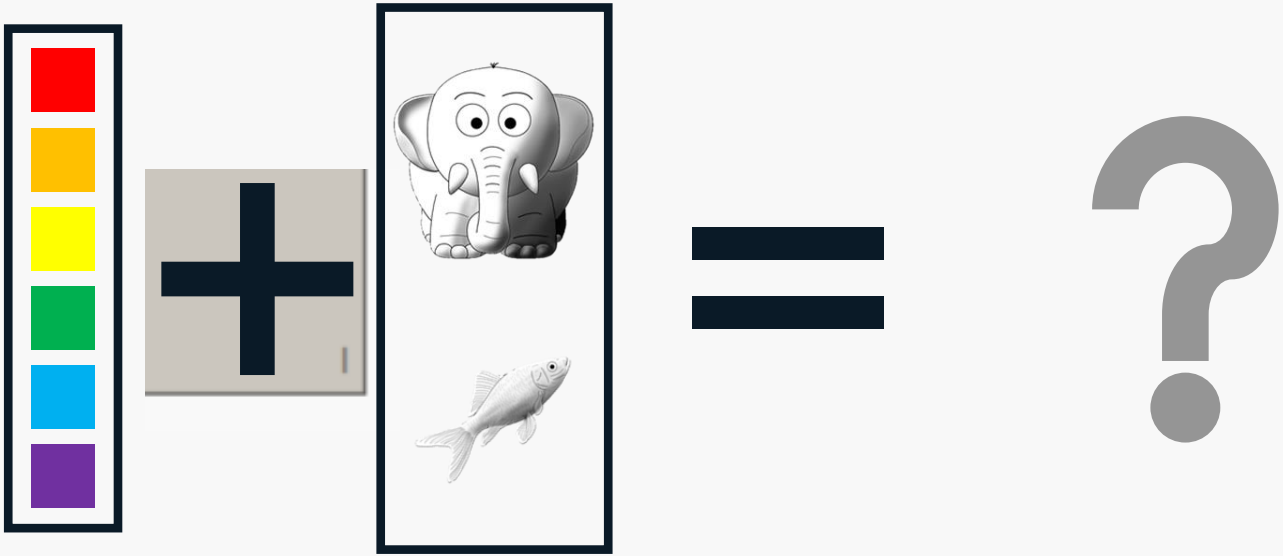
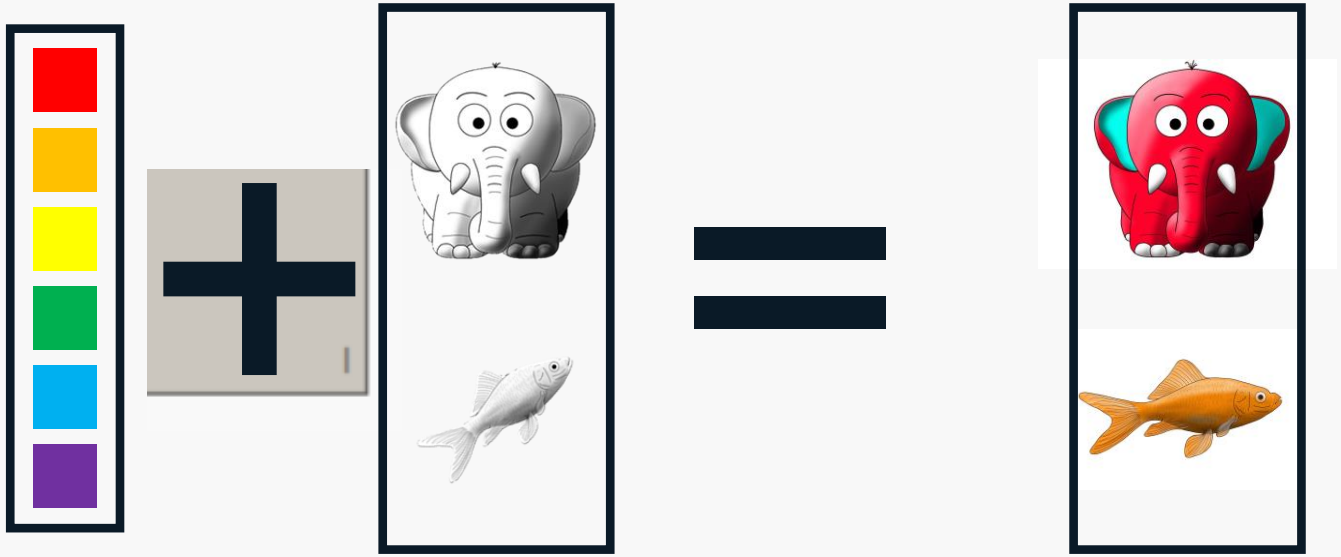
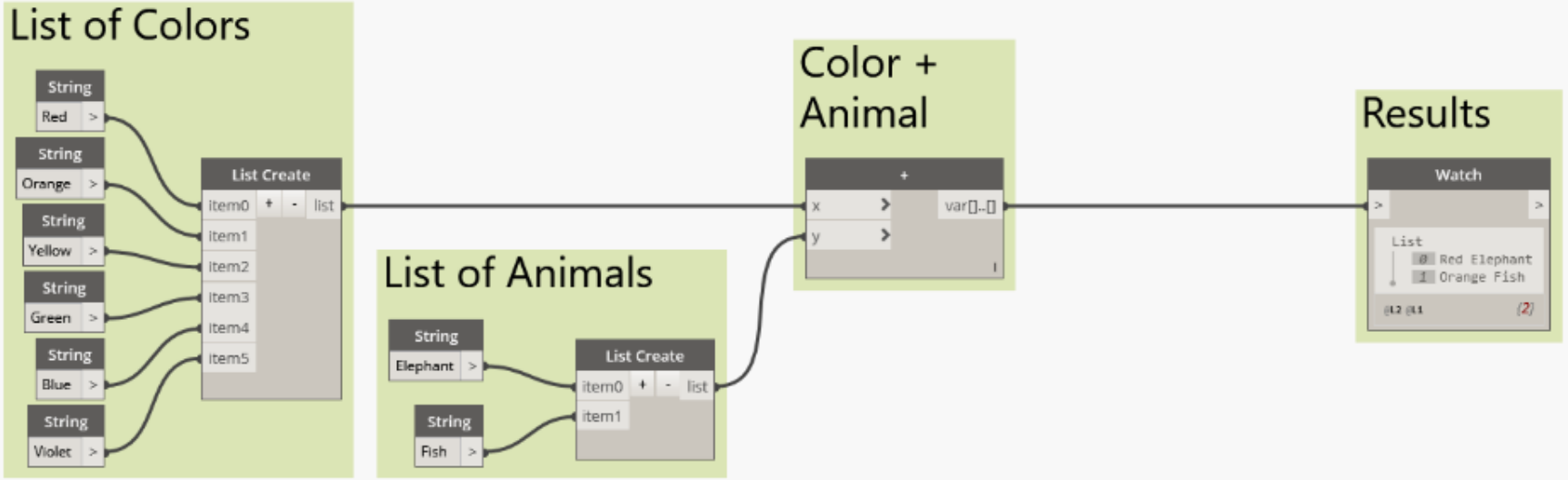


Lacing - Shortest



Lacing



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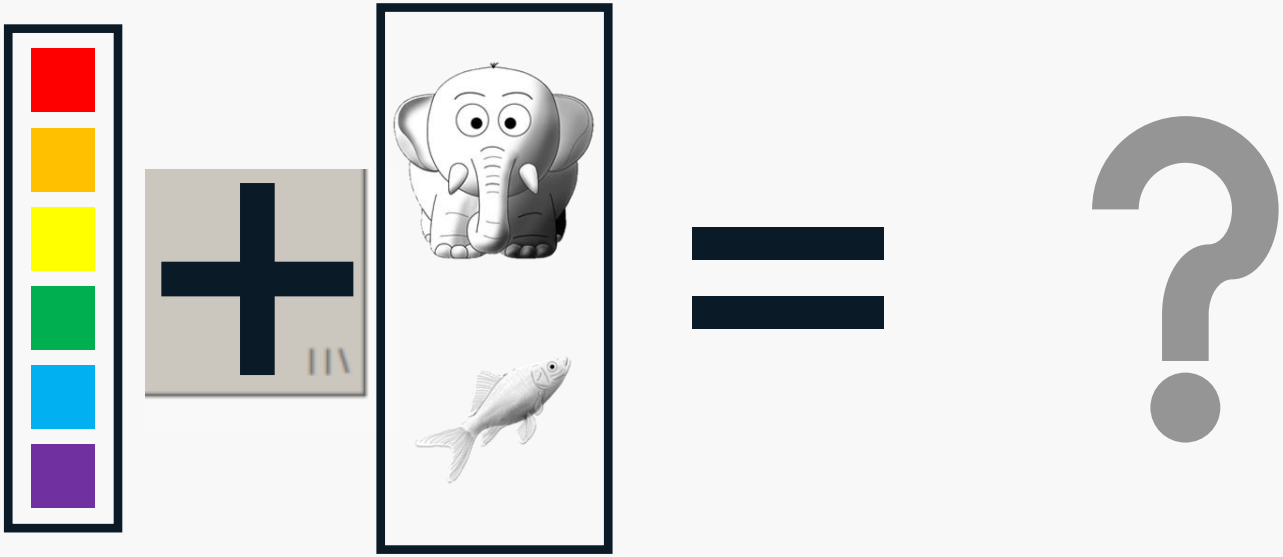
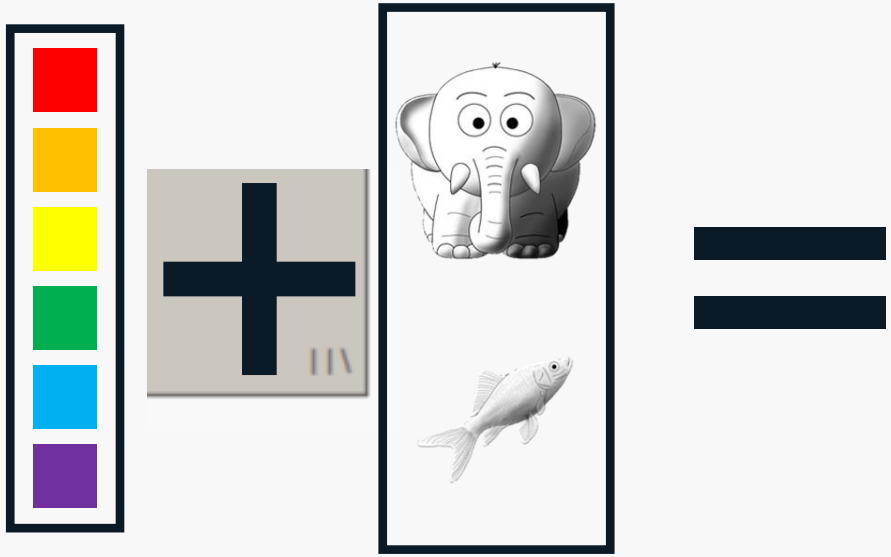


Lacing - Longest



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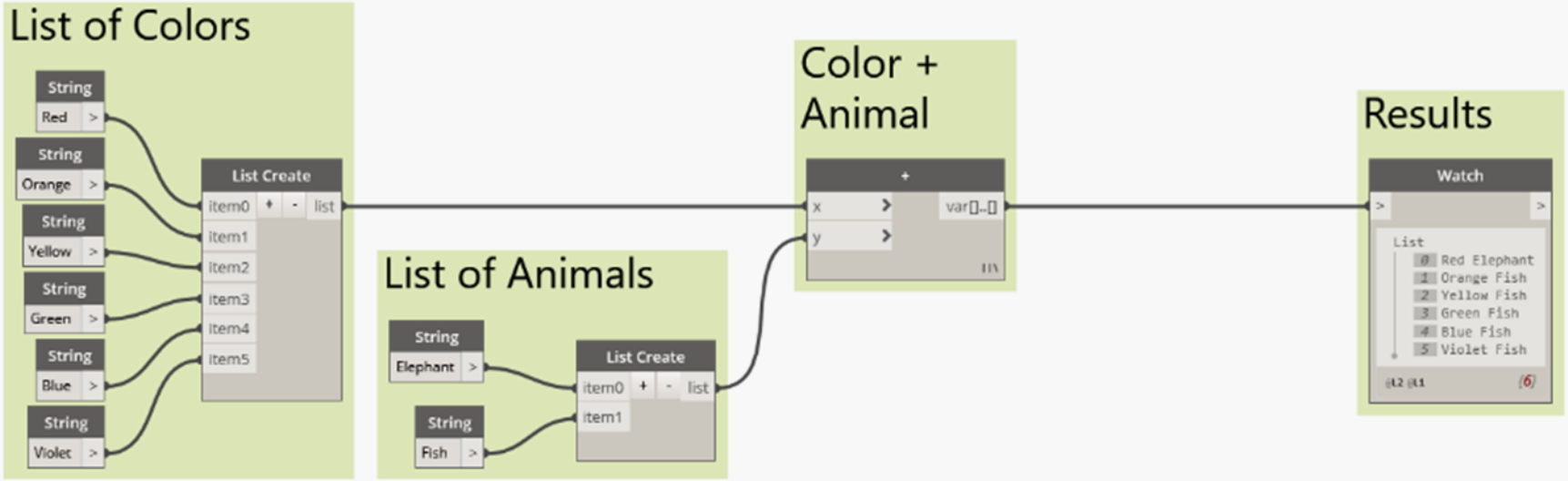

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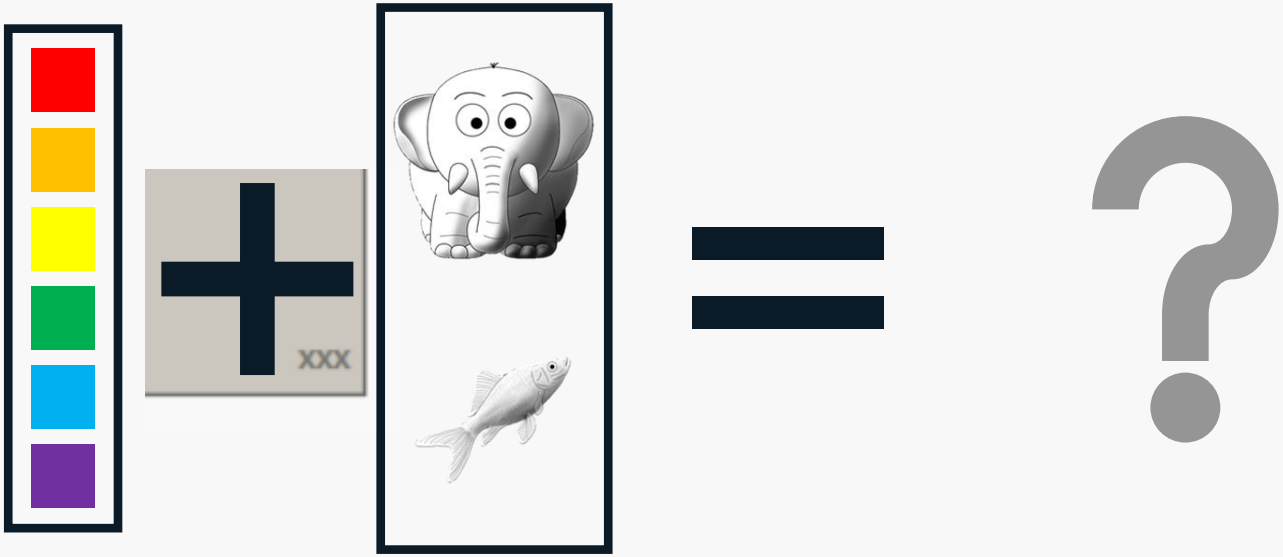
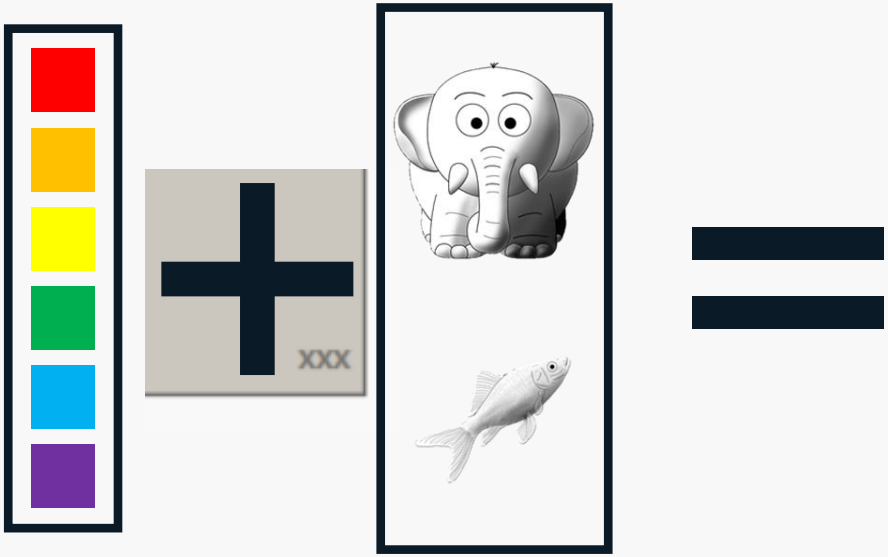
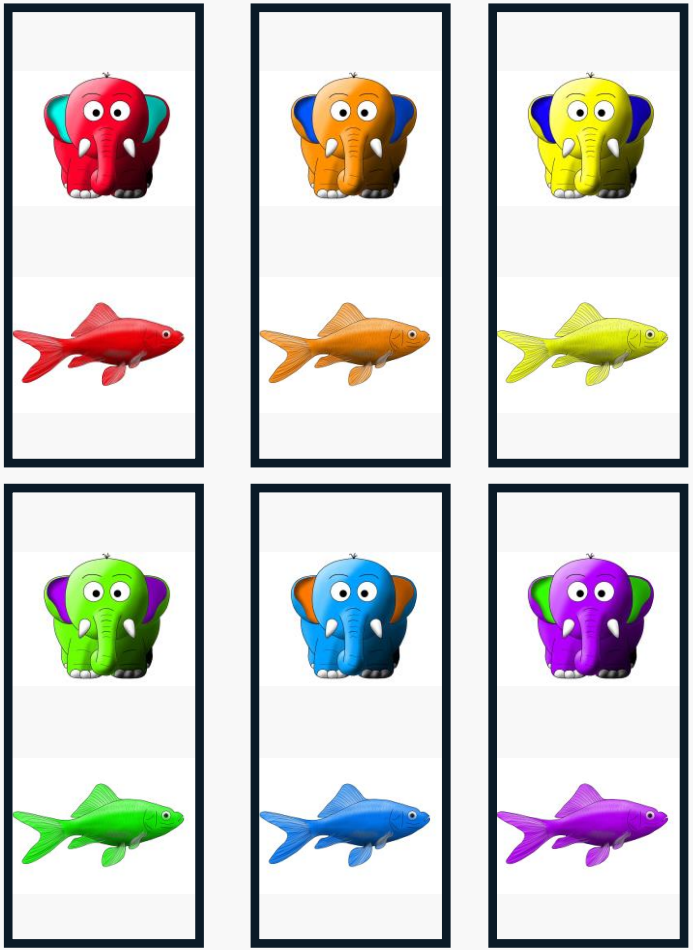


Lacing – Cross Product





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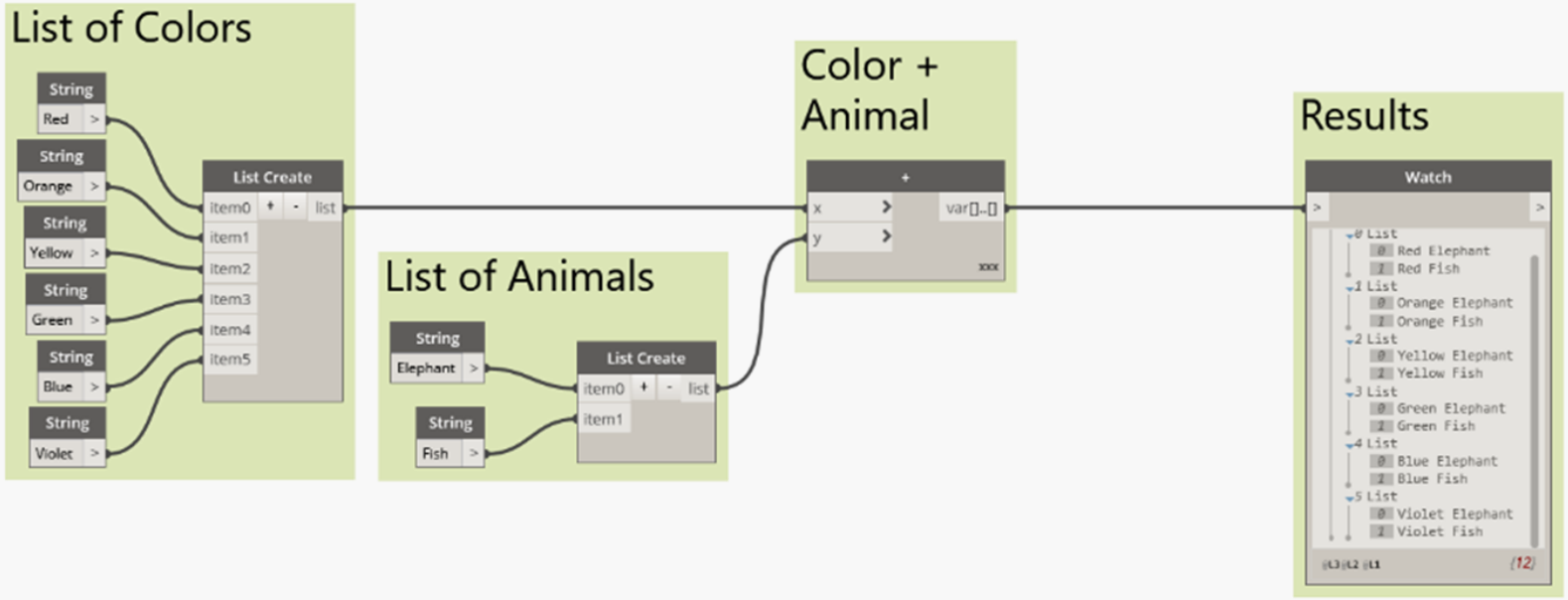
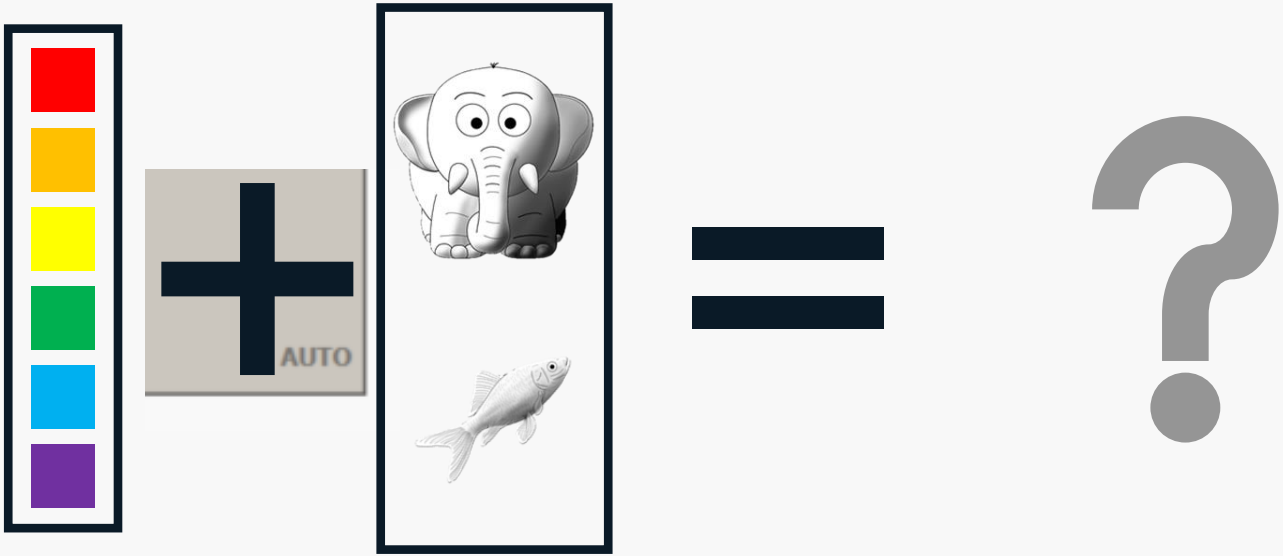
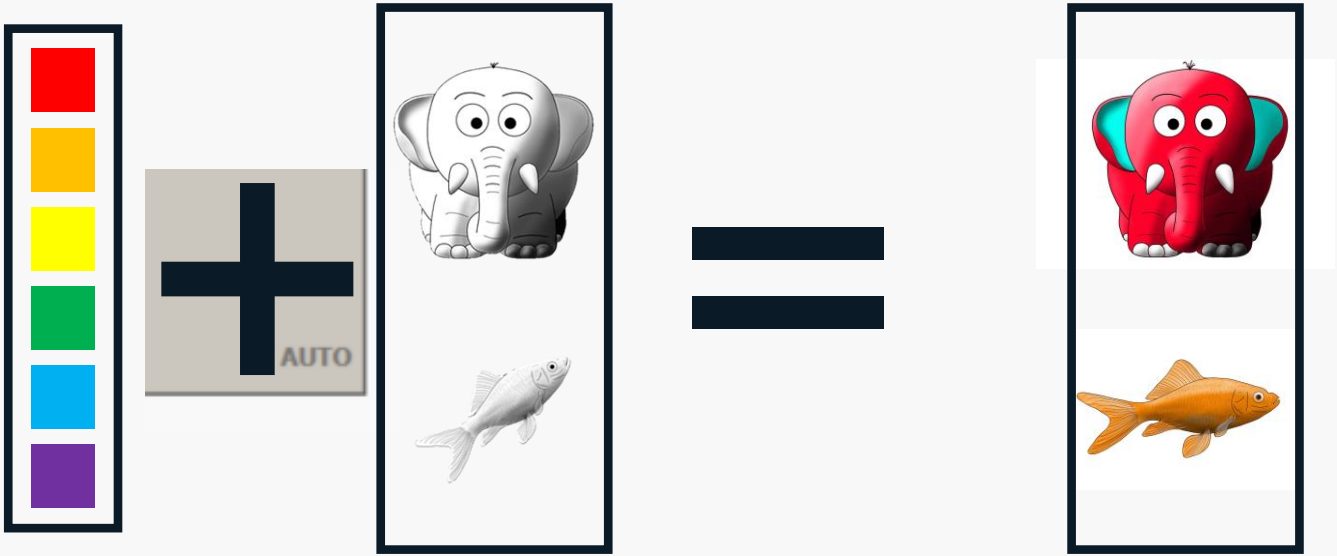


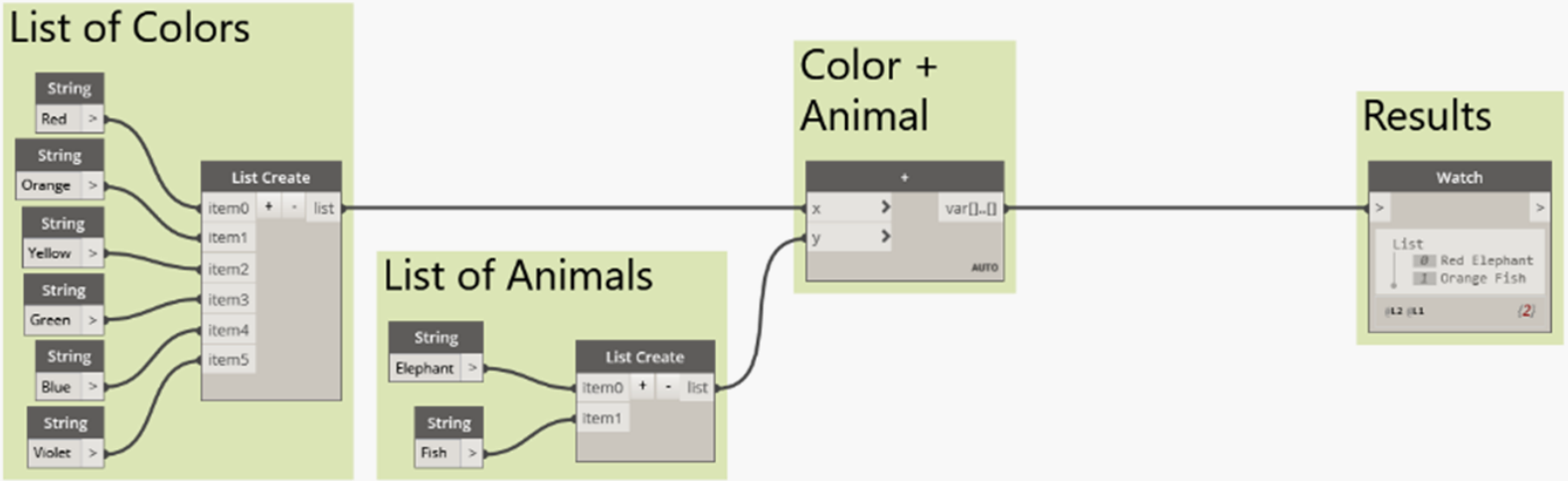
Lacing



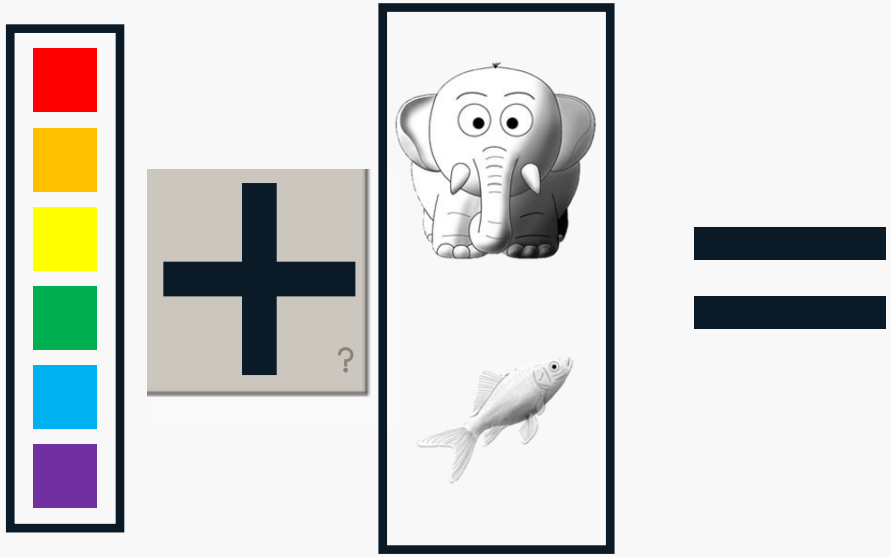
Lacing - Auto



Lacing

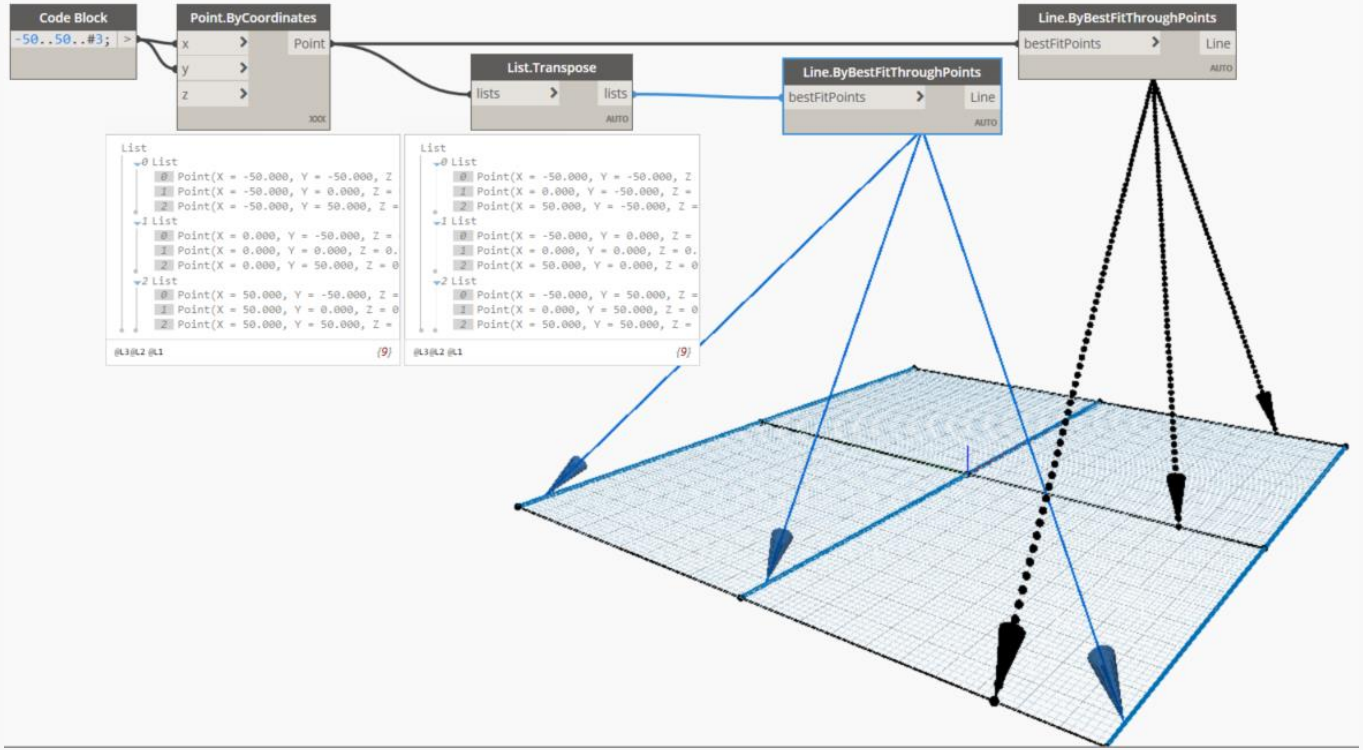


Lacing – ???

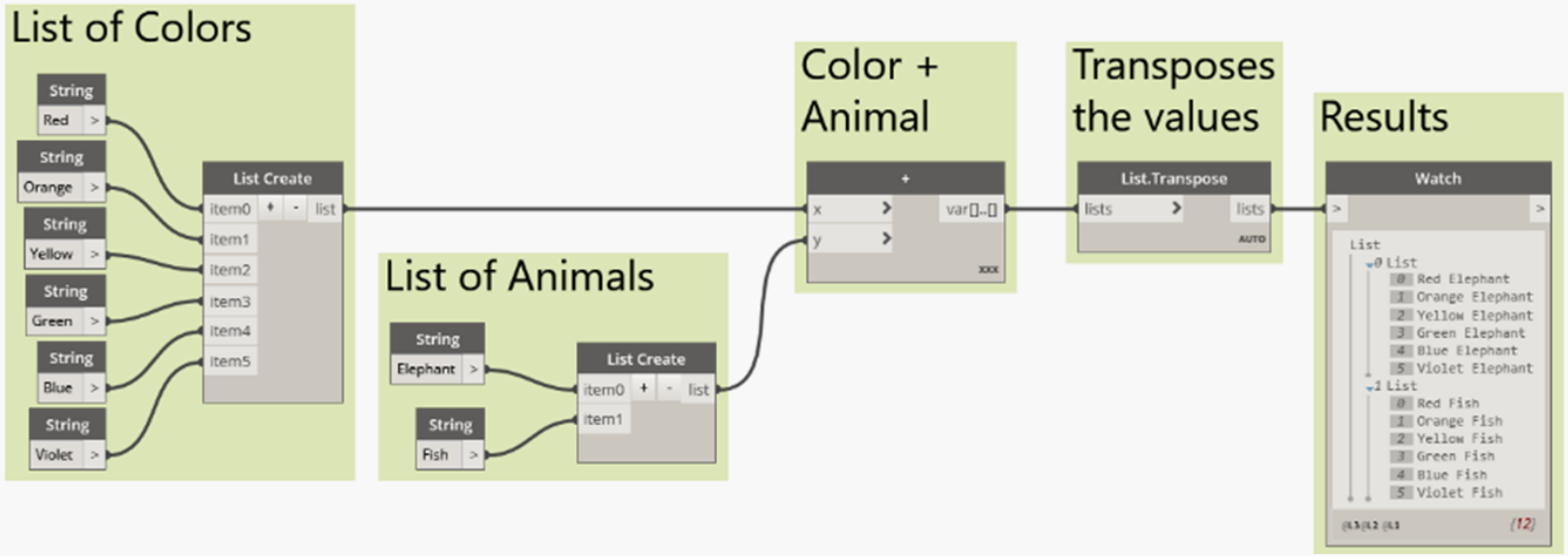


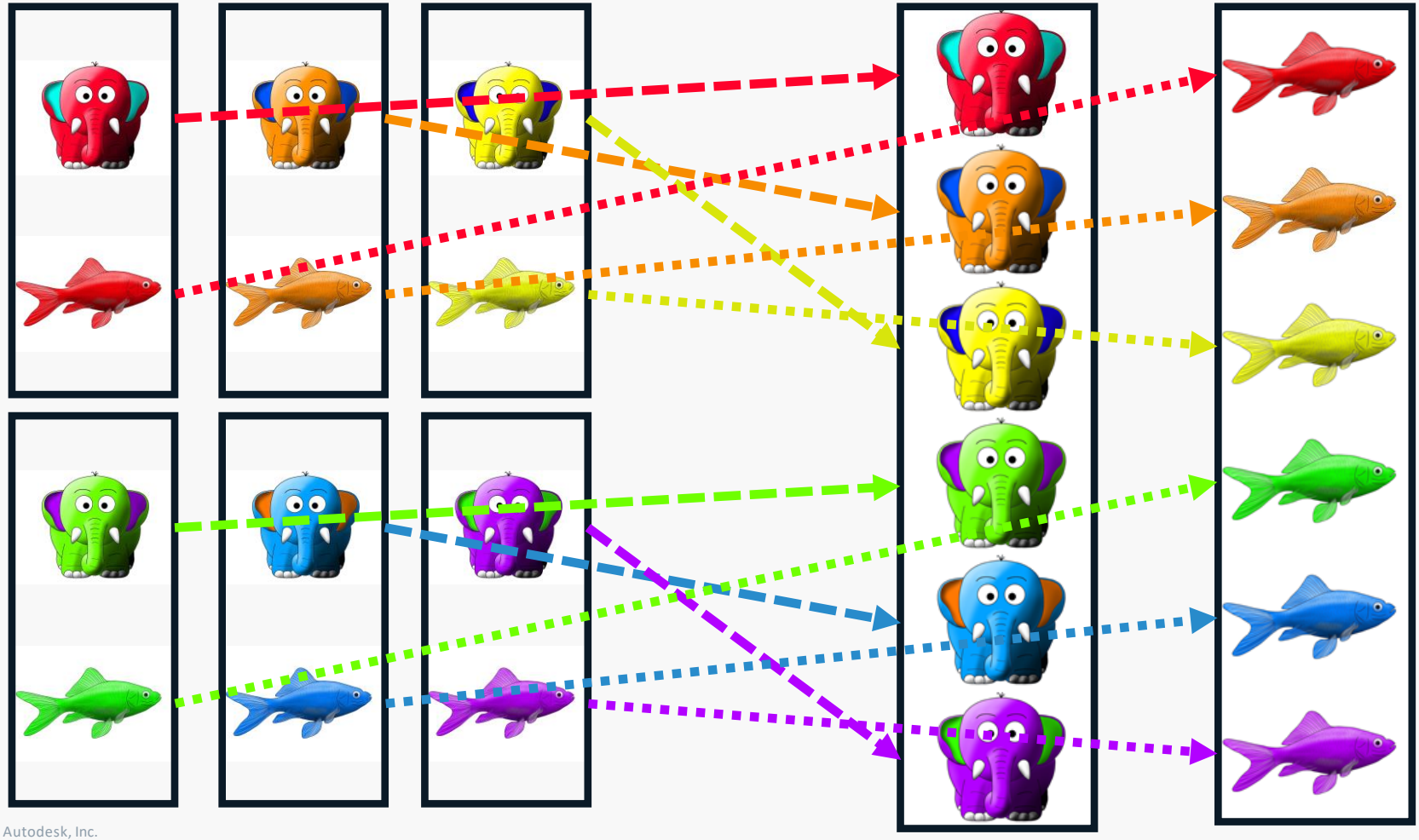
Working with Lists

Transpose



Lacing





LEARNING RESOURCES

Bookmark these in your preferred browser

Dynamo Info / News

- Main: http://dynamobim.org/
- Blog: https://dynamobim.org/blog/
- Dynamo Builds: http://dynamobuilds.com/
- Dynamo GitHub: https://github.com/DynamoDS/Dynamo

Dynamo Learning

- Dynamo Primer: http://primer.dynamobim.org
- Dynamo Forums: https://forum.dynamobim.com/
- Dynamo Dictionary: https://dictionary.dynamobim.com
- Dynamo Nodes: https://dynamonodes.com/

Design Script:

- Design Script Language Summary: http://designscript.io/DesignScript_user_manual_0.1.pdf
- Design Script Language Guide: https://dynamobim.org/wp-content/links/DesignScriptGuide.pdf
- Design Script Presentation: https://github.com/Amoursol/dynamoDesignScript

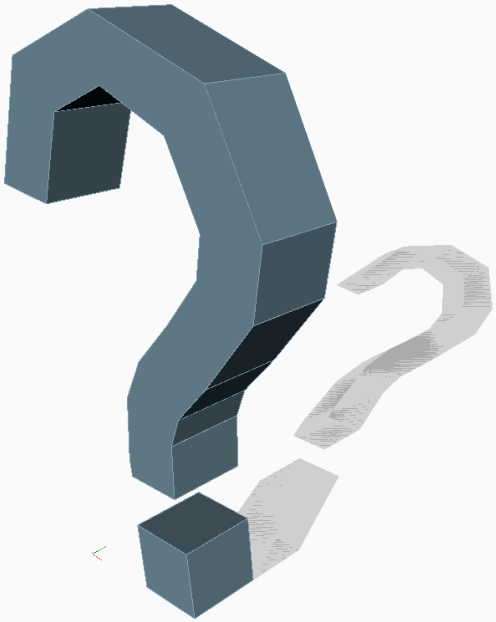
Dynamo Python:

- Python for Dynamo AU Lab Handout 1: https://docs.google.com/document/d/1_ms_ZyyKoaWbWbcio3CN5qTI2Ywq4OJep3SIsWOXXuI/edit#heading=h.76xq4kaz9plc
- Python for Dyanmo AU Lab Handout 2: https://github.com/Amoursol/dynamoPython/blob/master/images/DivingDeeper_ABeginnersLookAtPythonInDynamo_AU_London2018.pdf
- Python for Dynamo examples: https://github.com/Amoursol/dynamoPython

Generative Design:

- Info: https://www.autodesk.com/campaigns/refinery-beta
- Generative Design Primer: https://www.generativedesign.org/
- Beta Site: https://feedback.autodesk.com/key/RefineryLanding

Questions?



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