



Learn Dynamo

Lesson 1

Session 1

Getting Started & General User Interface



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Do I need to know Code?

(Python, C++ (#), Ruby etc.)



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No, none at all!
(But of course, it helps)



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Accessing Dynamo

Where, how and
what will you need?



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Which Version?

Currently 2.0.2 for 2019

Suggest 1.3.4 for older Revit Builds

<https://dynamobim.org/download/>



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Dynamo is an open source component technology for visual programming. It allows you to manipulate data, explore design options, automate processes. When used in partnership with other applications it can manipulate and interconnect complex systems like CAD, Building Information Models, and simulation engines.

- ✓ Rapid design iteration and broad interoperability
- ✓ Lightweight scripting interface
- ✓ Shared component between Autodesk Revit, Alias, Advanced Steel, FormIt, Civil3D

DOWNLOAD

Version 2.1.0



DynamoRevit is a graphical programming interface that lets you customize your building information workflow. DynamoRevit is an open source visual programming platform for designers. It is installed as part of Revit.

- ✓ Rapid design iteration and broad interoperability
- ✓ Lightweight scripting interface
- ✓ Current builds for Autodesk Revit 2017, 2018 and 2019

DOWNLOAD

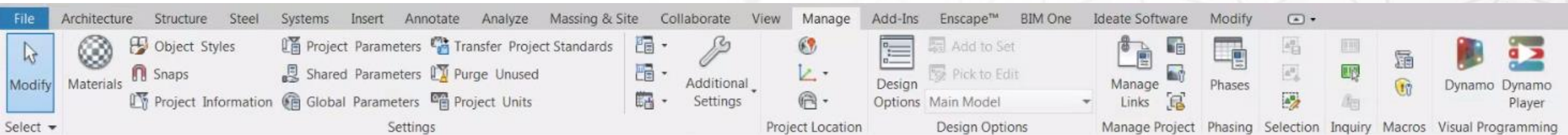
Version 2.0.2



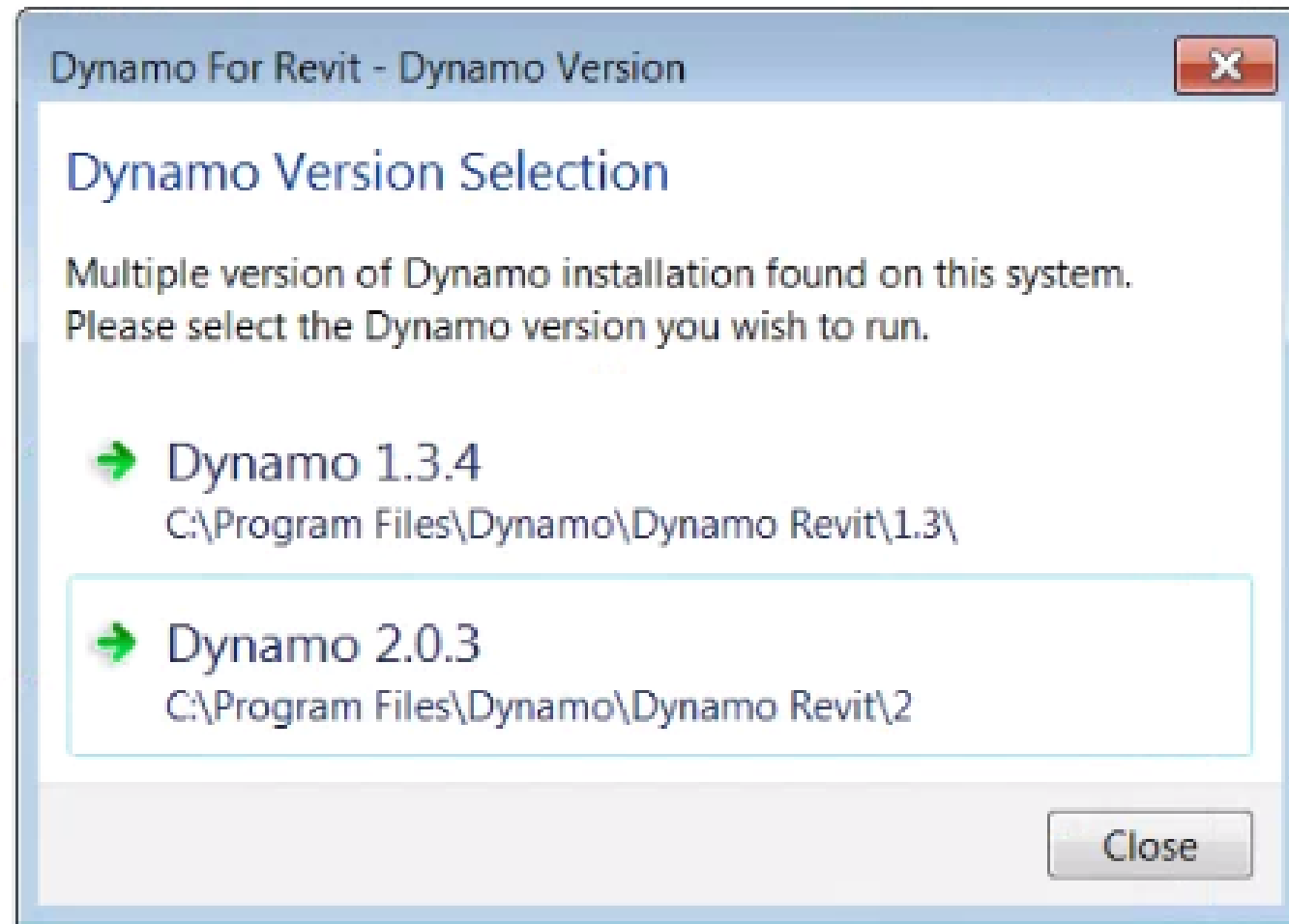
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Opening Dynamo

One small step for man



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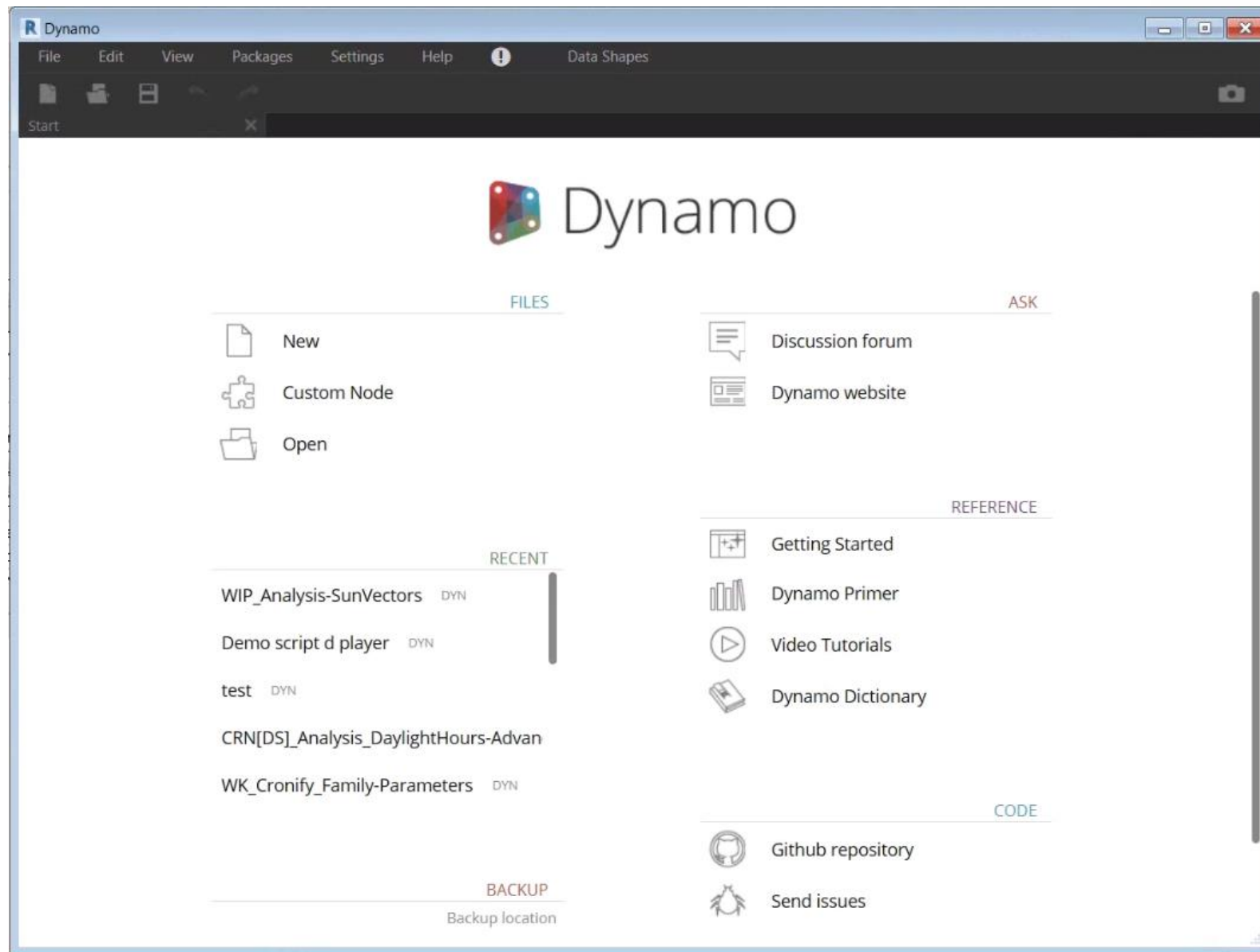


The Home Screen

Our Safe Space



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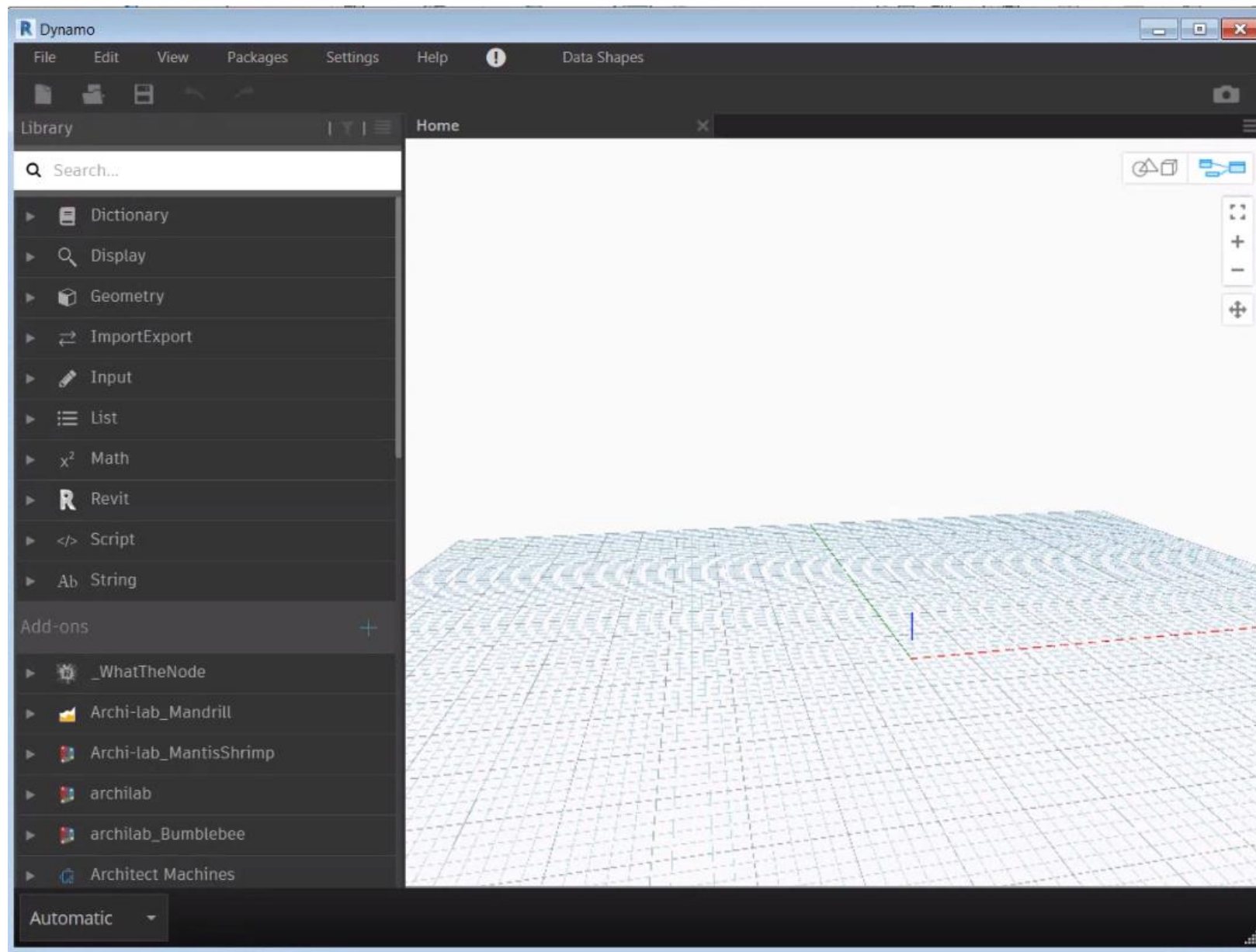
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The Scripting Environment

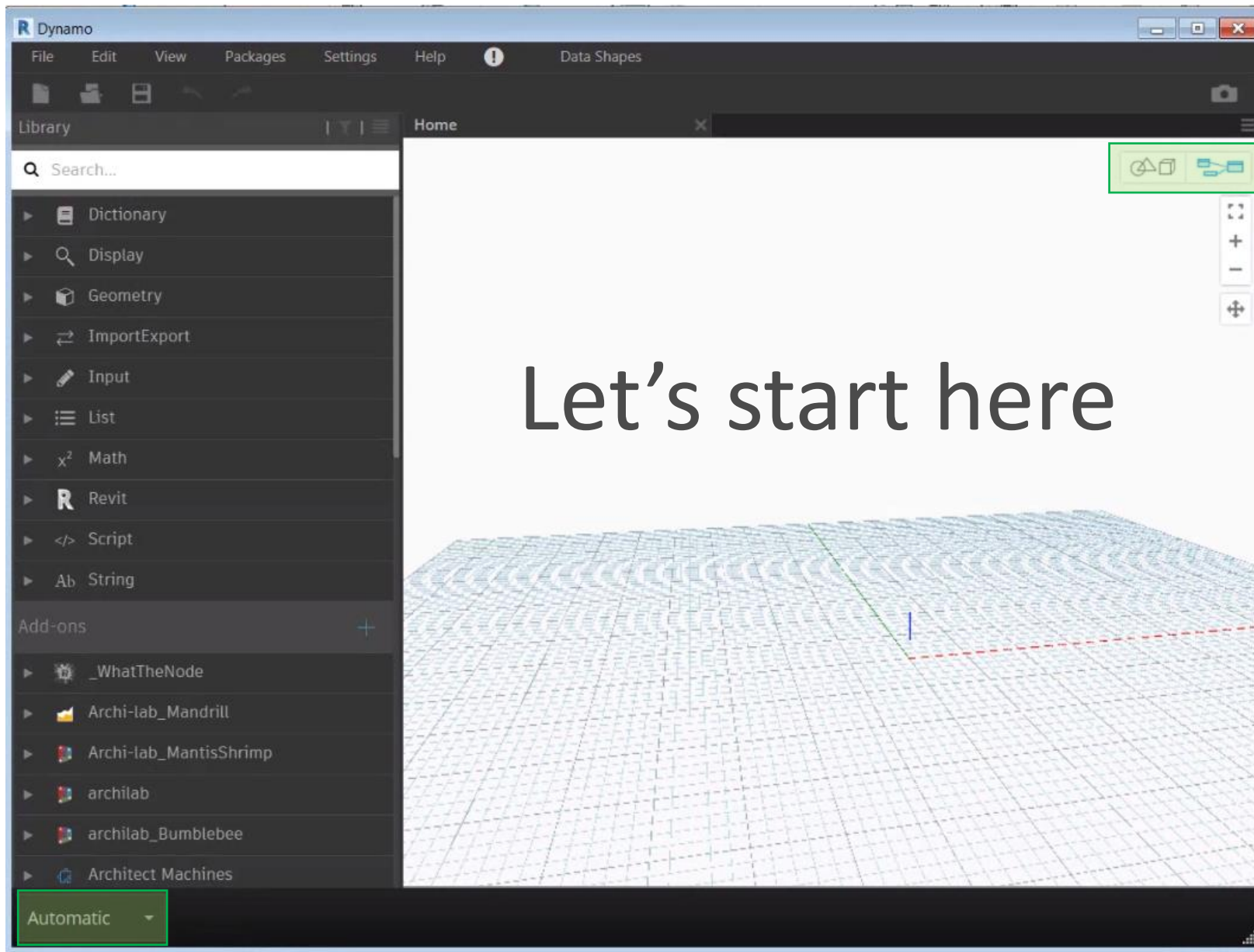
Now we're getting serious!



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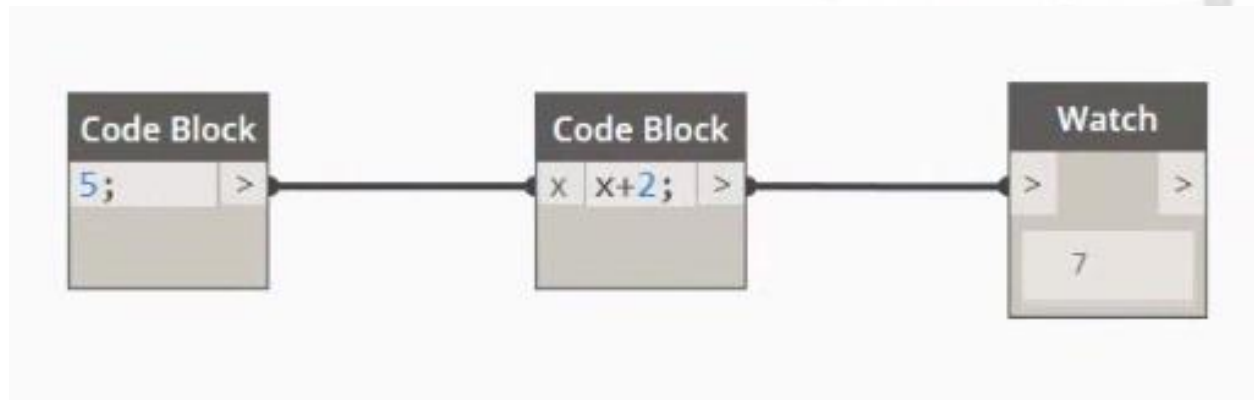
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Some coding terms

Unwinding the Jargon....

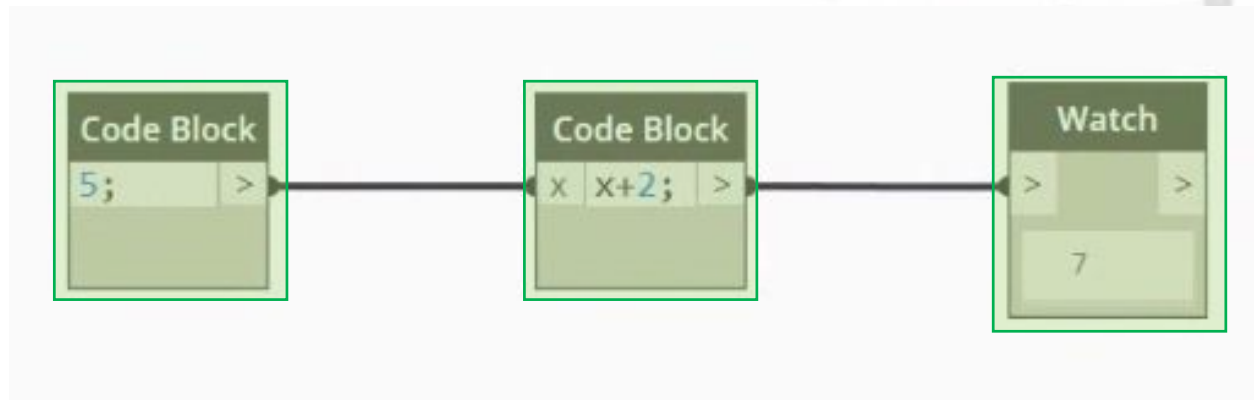


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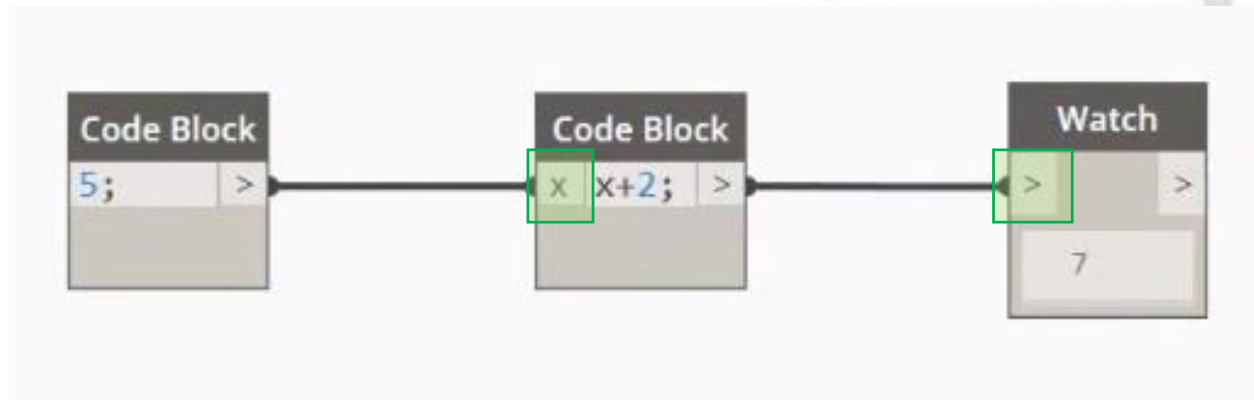


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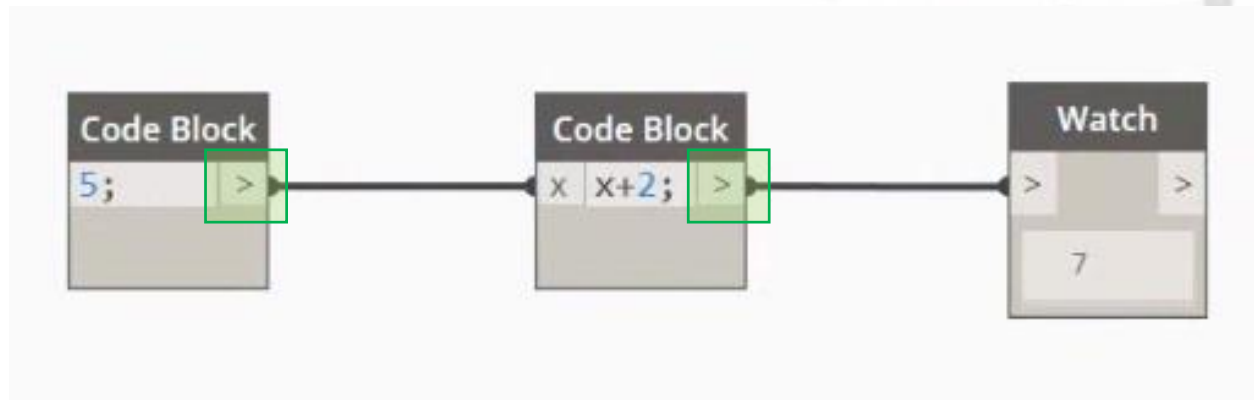
Nodes



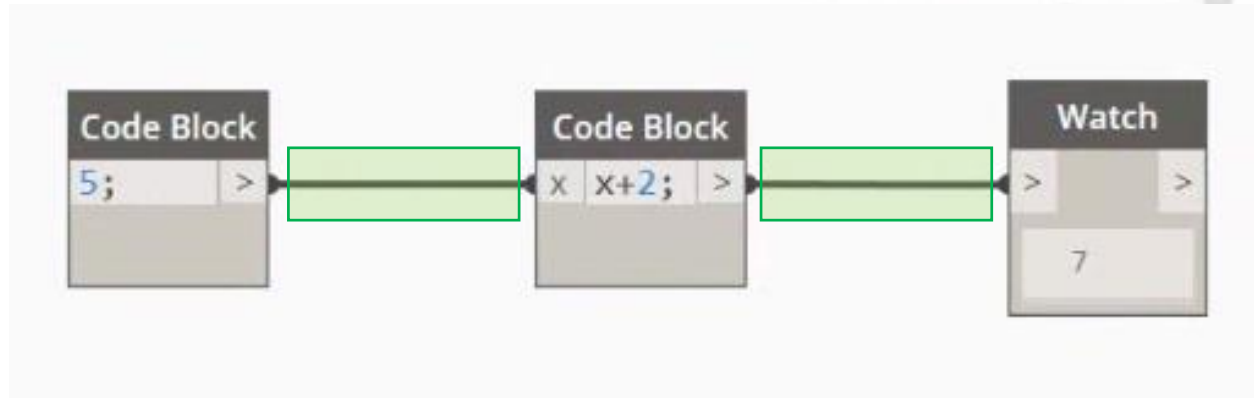
Inputs



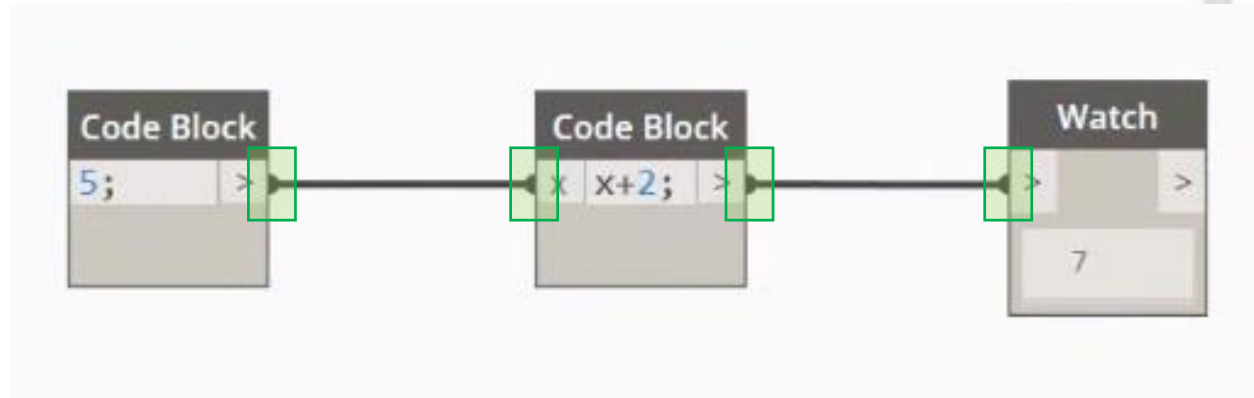
Outputs



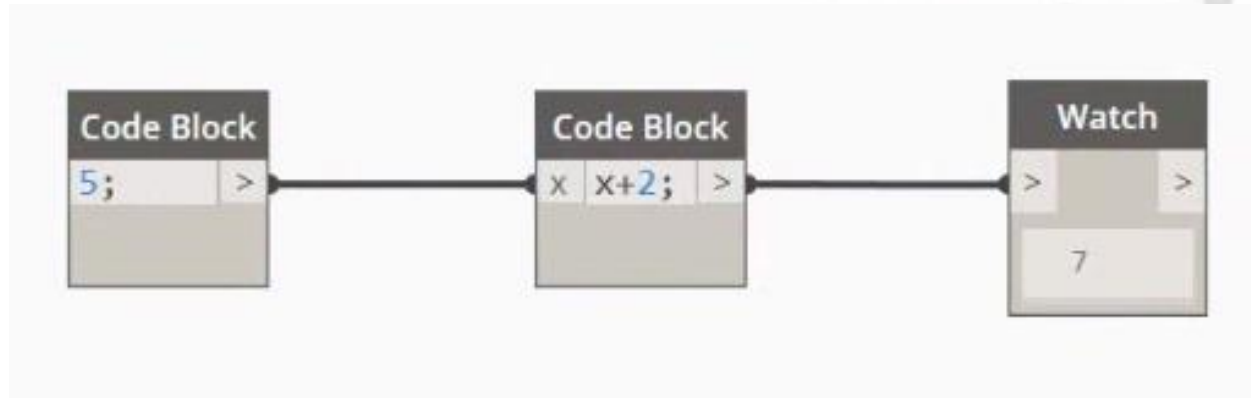
Wires



Connectors



Data/Program Flow Typically Left to Right



Problem

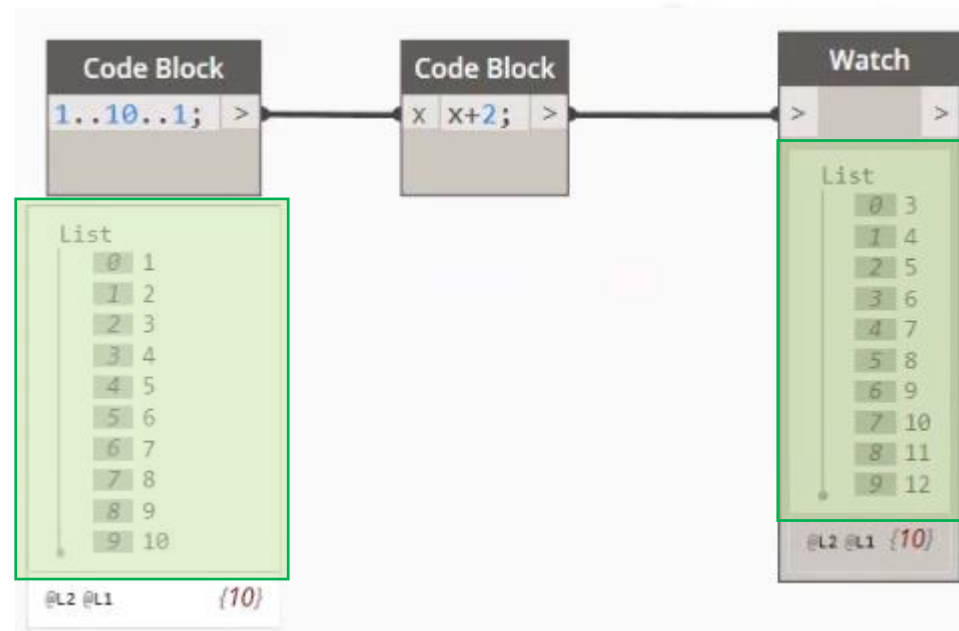


Solution

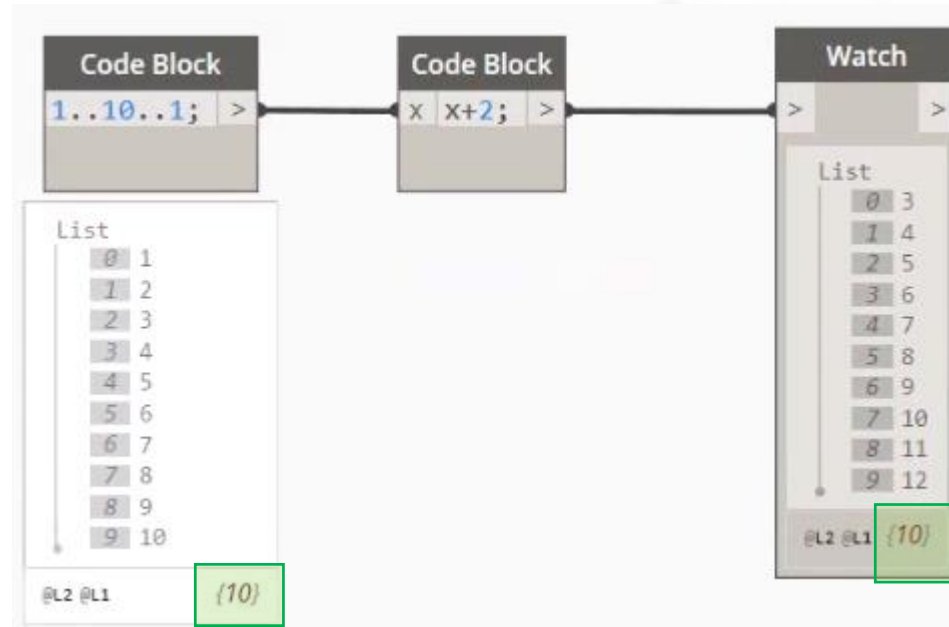


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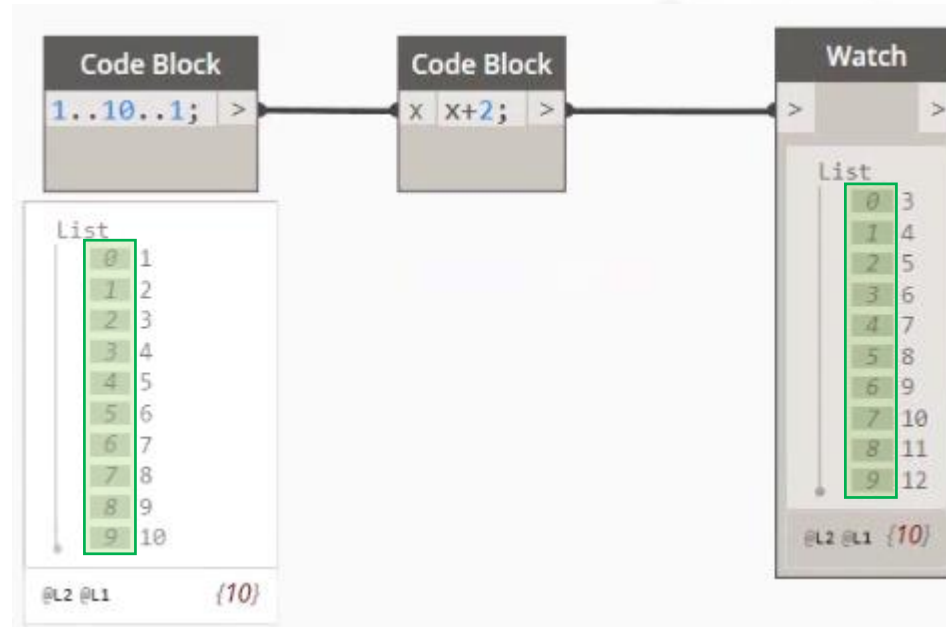
List



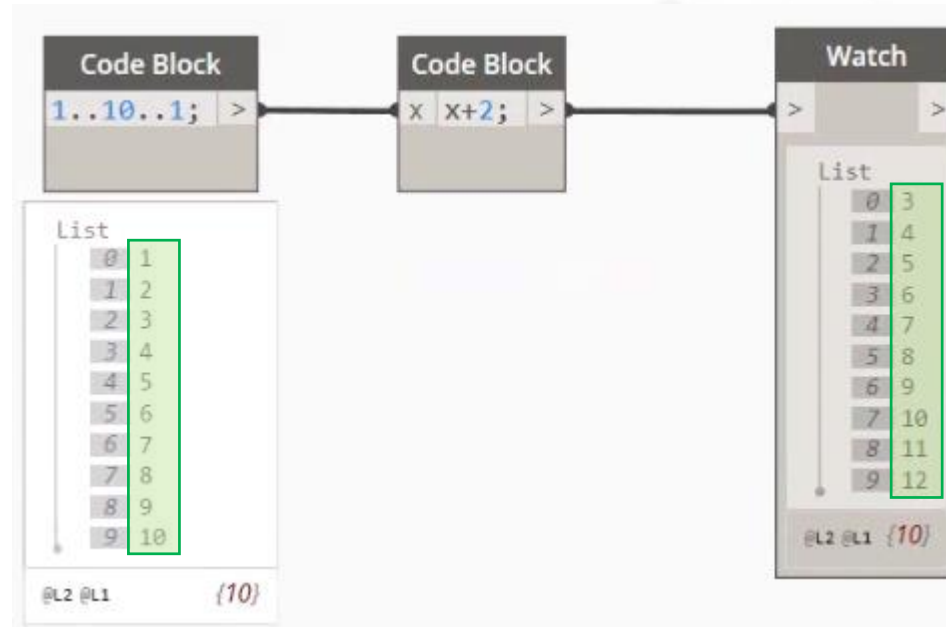
List Length/Count



List Index/Position



Values



Accessing Nodes

Code with Nodes!



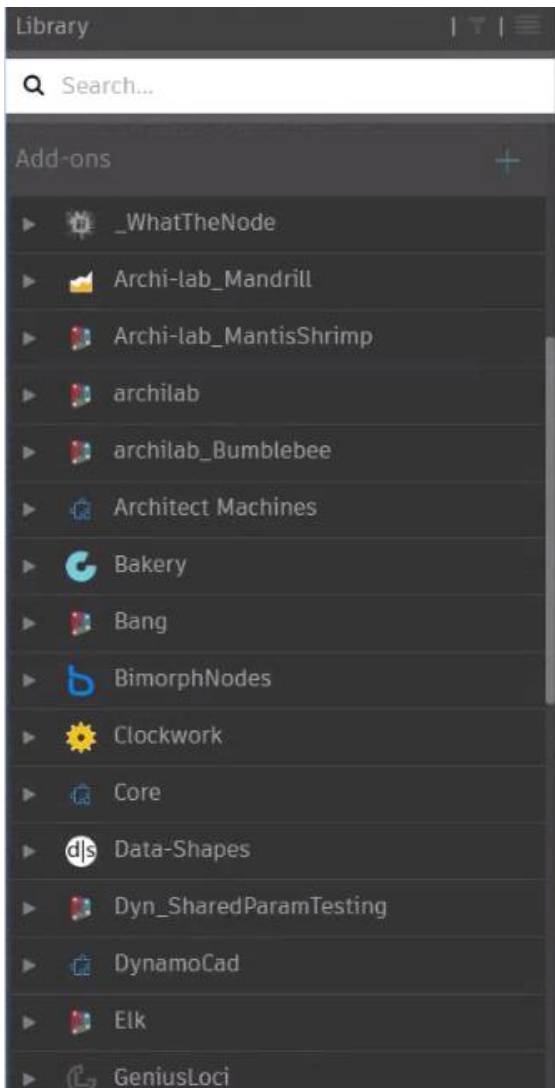
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Add-ons

The beauty of 'Open Source'



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The Essentials

Clockwork

Archilab

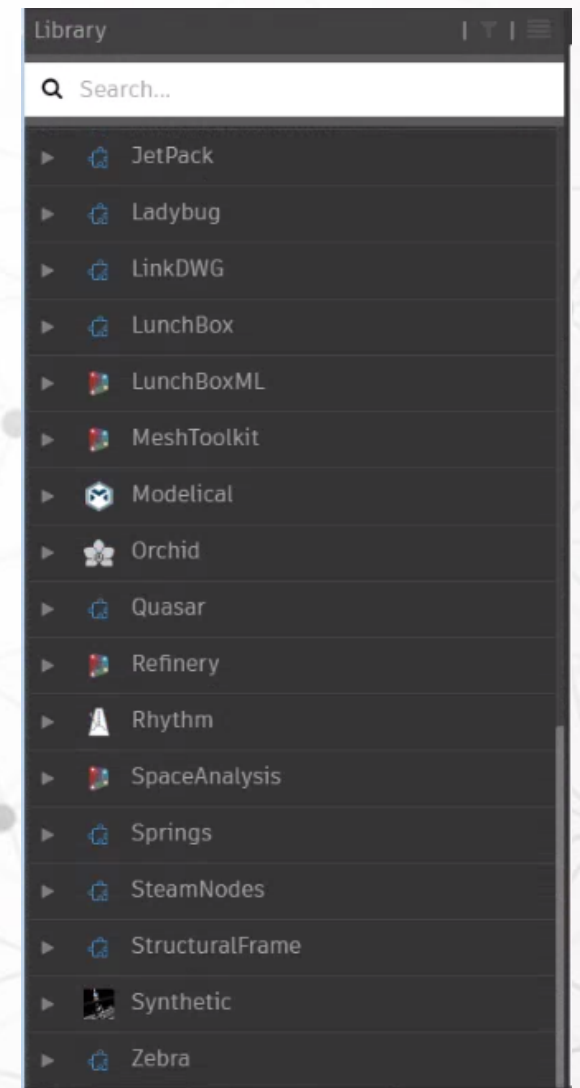
Bakery

archilab_Bumblebee

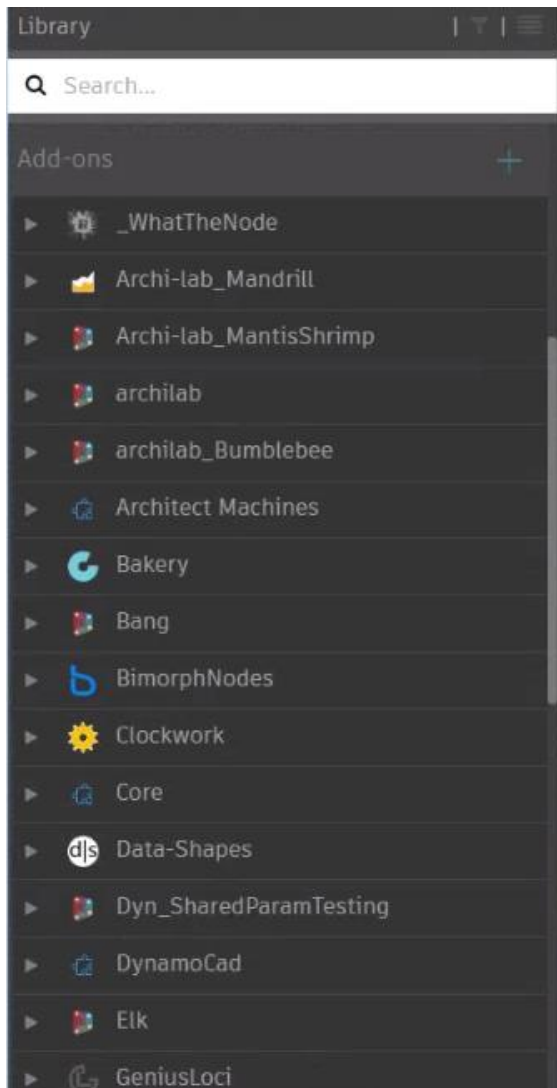
Modelical

Rhythm

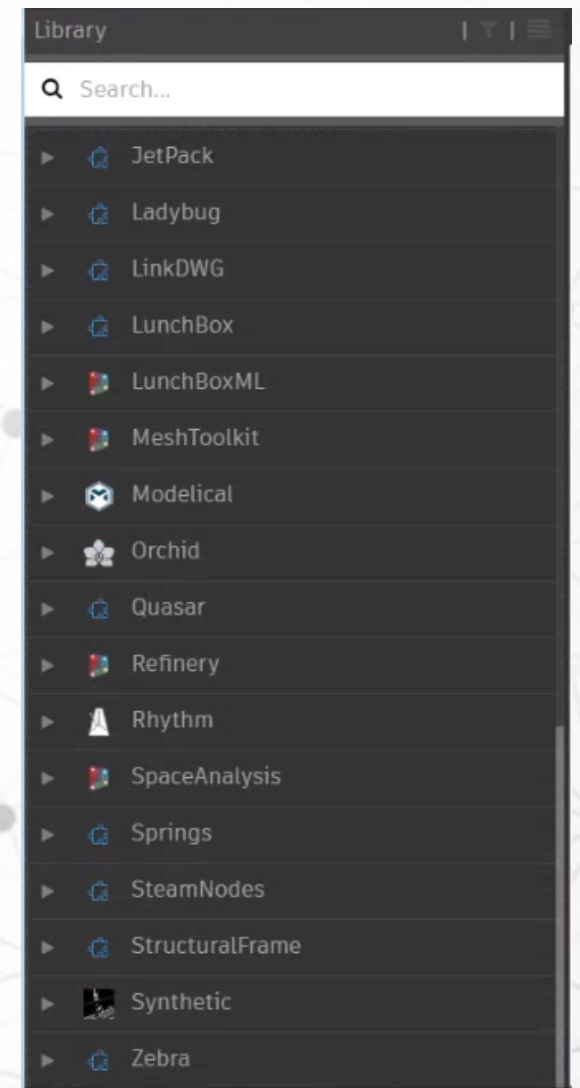
Springs



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Pretty Useful
Archi-Lab MantisShrimp
Genius-Loci
Orchid
Lunchbox
SteamNodes
Synthetic
Zebra



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Specific Tasks

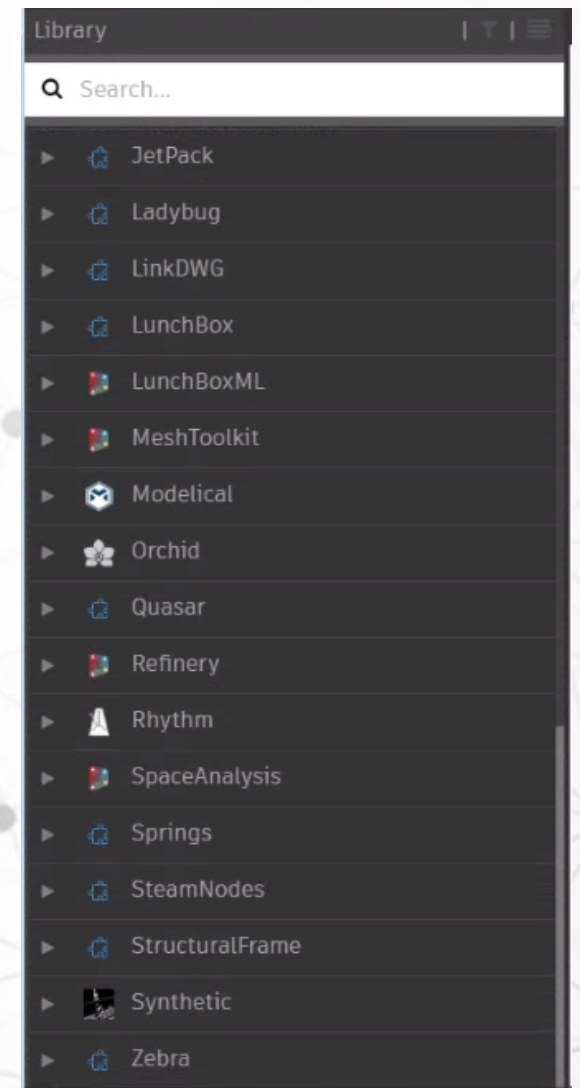
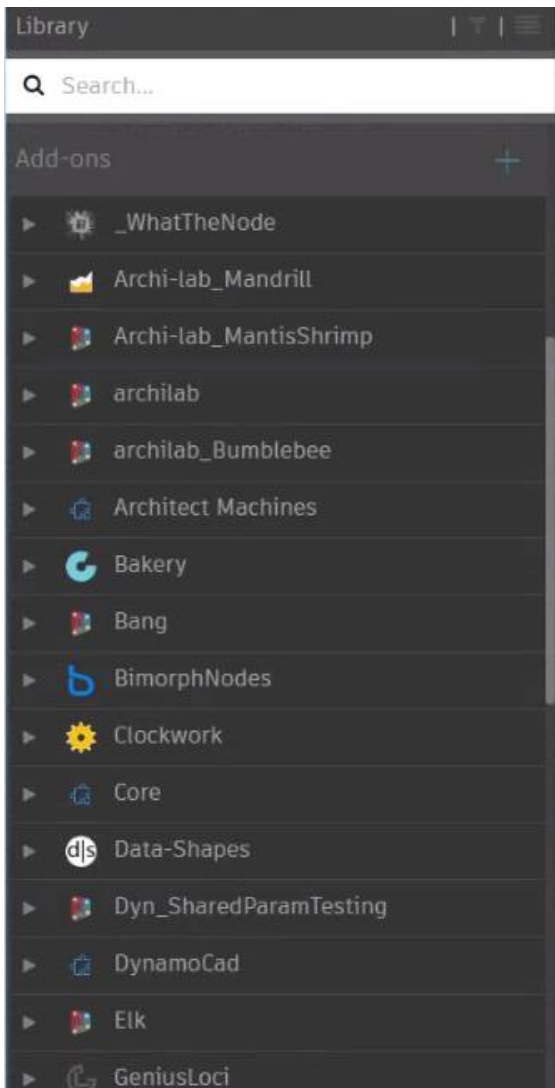
Bang

Data-Shapes


Elk

Ladybug + Honeybee

Space Analysis



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A background network diagram consisting of numerous grey dots connected by thin grey lines, forming a complex web-like structure that fills the right side of the slide.

Important
Users must share packages



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Geometry Scaling

Pick to suit your script



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Finding Help!

Dynamo Primer

<https://primer.dynamobim.org/>

Dynamo Forums

<https://forum.dynamobim.com/>



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Next: Session 2

Arithmetic and Data Flow



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See you in the
next Lesson!