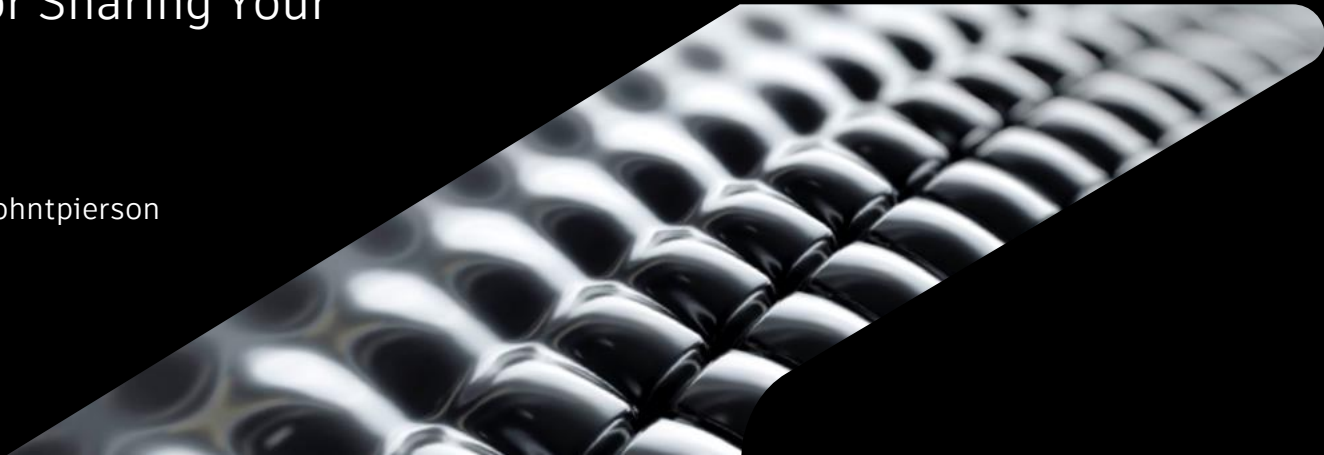


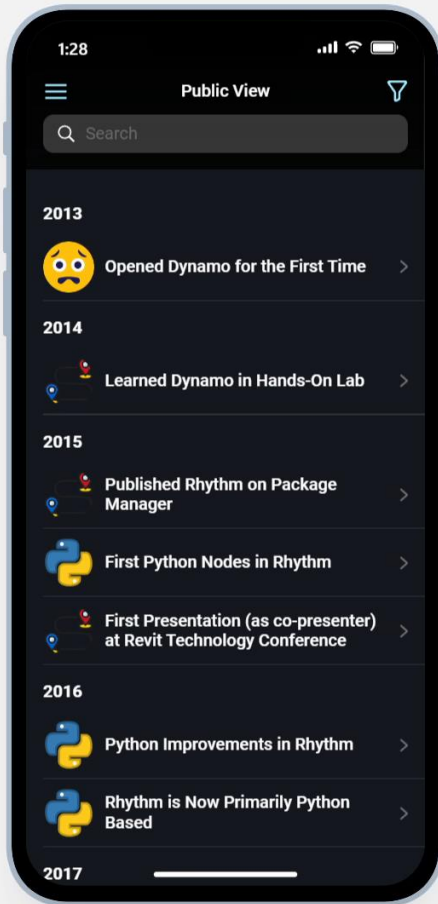
I Shipped My Scripts

Awesome Methods for Sharing Your
Dynamo Graphs

John Pierson
Design Technology Specialist | @johntpierson



My Dynamo Journey



My Dynamo Journey™

by Design Tech Unraveled

Made with Glide from a Google Sheet, without writing any code.

SHOW FULLSCREEN

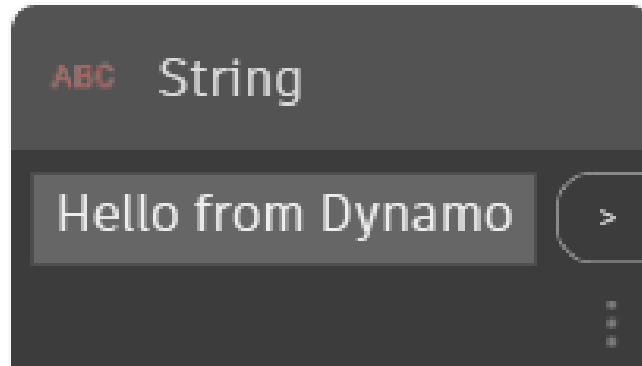
SHARE APP

**Last time we had AU
in person....**

Dynamo Nodes Looked Like This



Now They Look Like This



State of Dynamo



Dynamo Versioning

How does it work?

Dynamo Ver

How does it work?

Dynamo Versioning - Made Simple

2.13.1

Major Version - Should be compatible with all versions that start with this.

E.g. If you were to try to open a 2.x.x graph in 1.x.x, it will not work

Minor Version - New features added in backward compatible way. **E.g. graph properties (introduced in 2.12) will not break a graph but might disappear if opened in a way older version, like 2.0.4.**

Patch Version - Bugs fixed in a backward compatible way.

With the above in mind, we **should*** be able to maintain compatibility for Revit 2020/Dynamo 2.0.4 - Revit 2023. / Dynamo 2.13.1

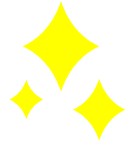
**this is dependent on package use, your revit environment and more*

Our Outline for this Class



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How to Survive

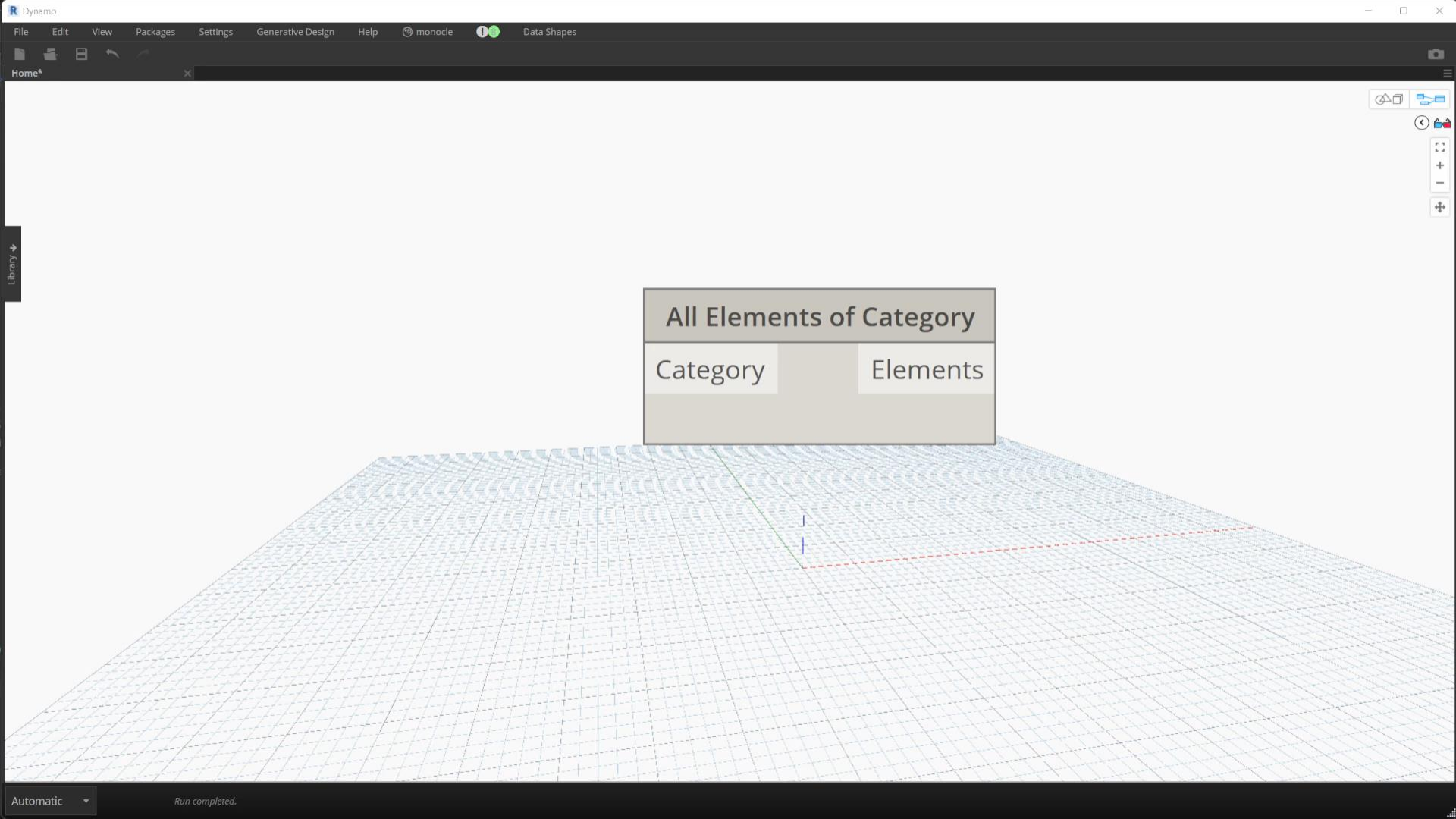
Using Dynamo has many different considerations. This part we will talk about ways to make it way better.

Drop Down Nodes

a long history of being frustrated

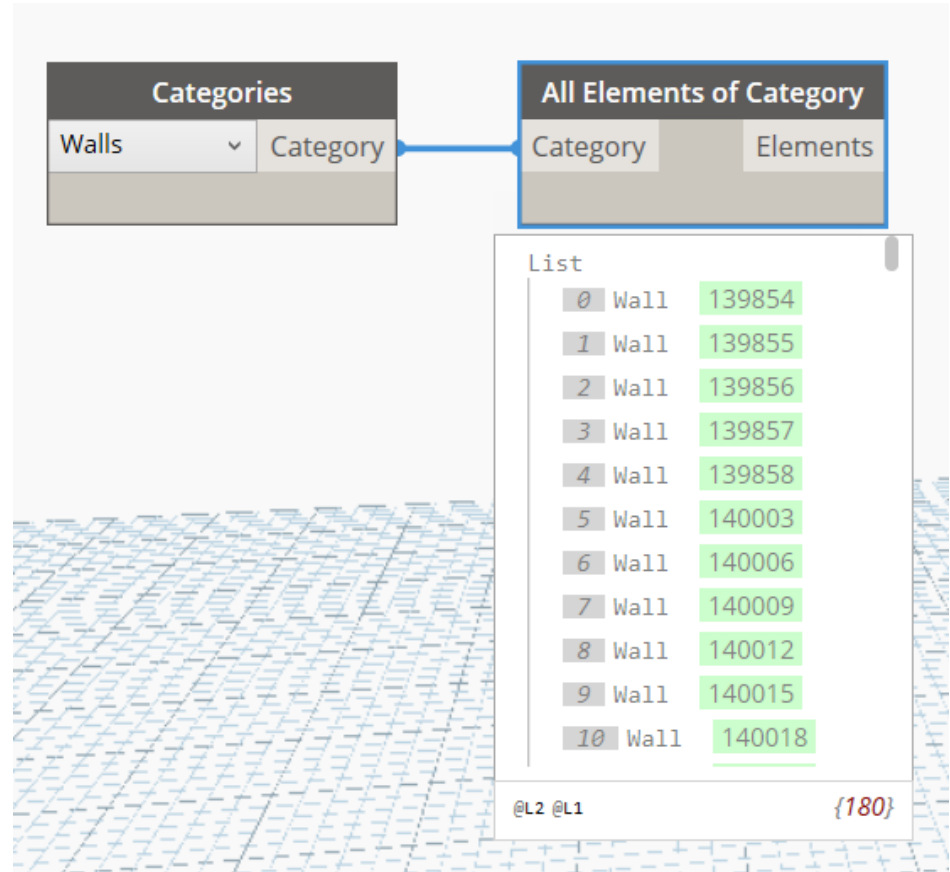


**Don't get me wrong
They can be great.**



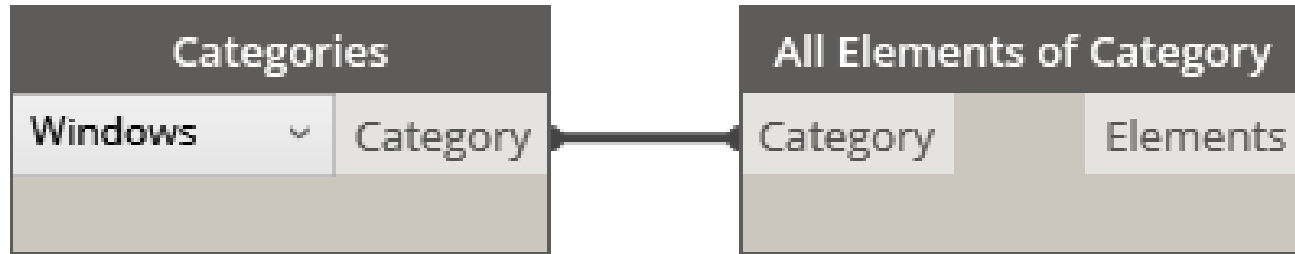
But...

- You need to know what can (and will) break.
- This graph was made in Revit 2019 to work with walls.
- Let's see what happens when we go to use it in other versions



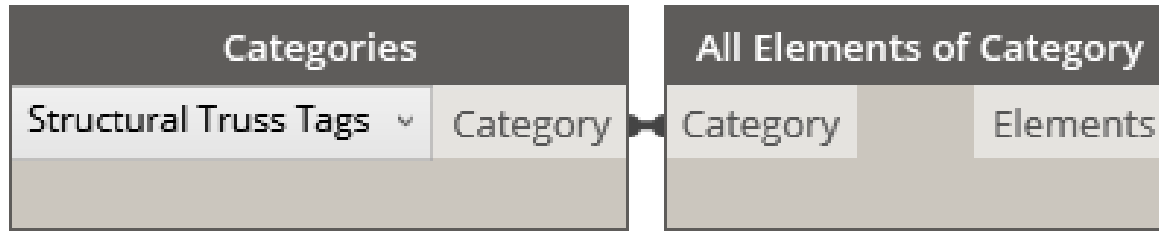
Dynamo 2.0.4 – Revit 2019

Same Graph..



Dynamo 2.3.1 – Revit 2020

Also Same Graph..



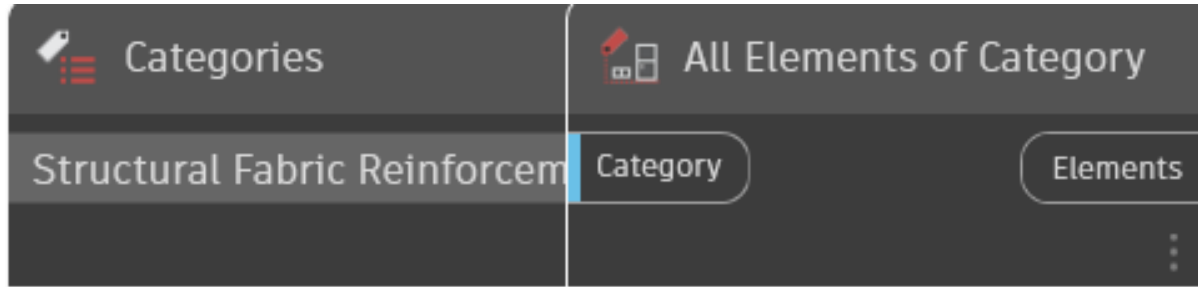
Dynamo 2.6.1 – Revit 2021

Also, also Same Graph..

Categories	All Elements of Category	
Structural Load Cases - Wind Loads ▾	Category	Elements

Dynamo 2.12.1 – Revit 2022

Also, also, also Same Graph..



Dynamo 2.13.1 – Revit 2023

And..



IMAGE NOT FOUND

Revit 2024

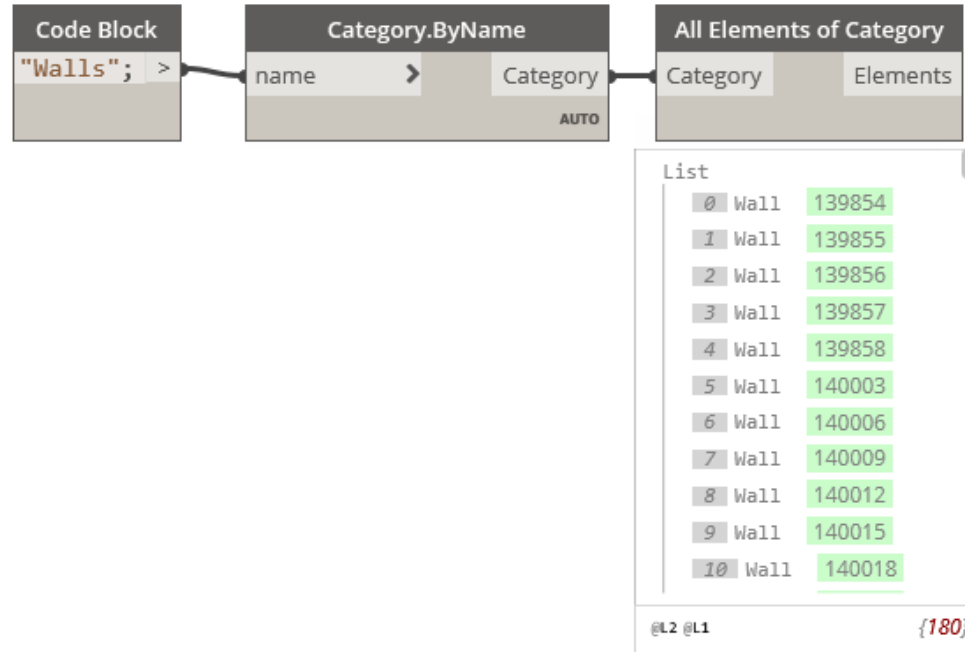
Just Kidding

**So, How do we
handle this?**

**Only use dropdowns
when you want them
to change.**



Hardcode the values unless it is changeable by your user.

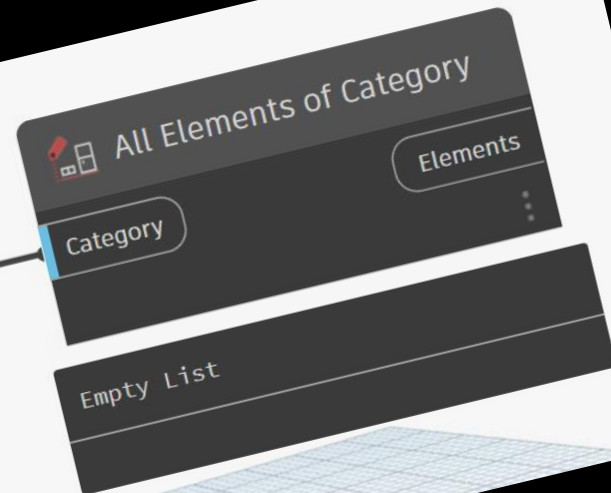
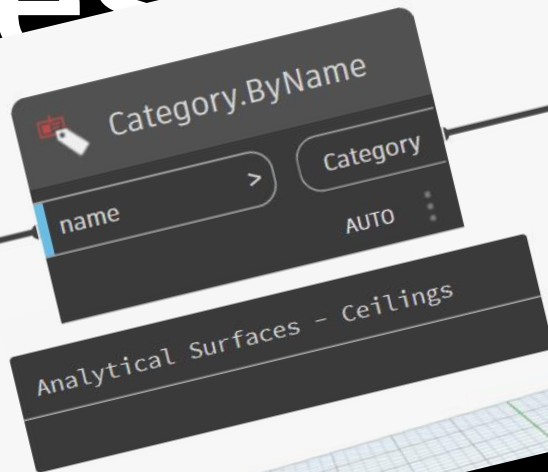
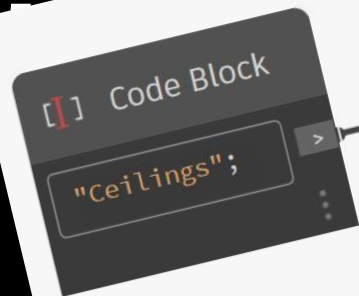


Dynamo 2.3.1 – Revit 2021

**And live happily
ever after**

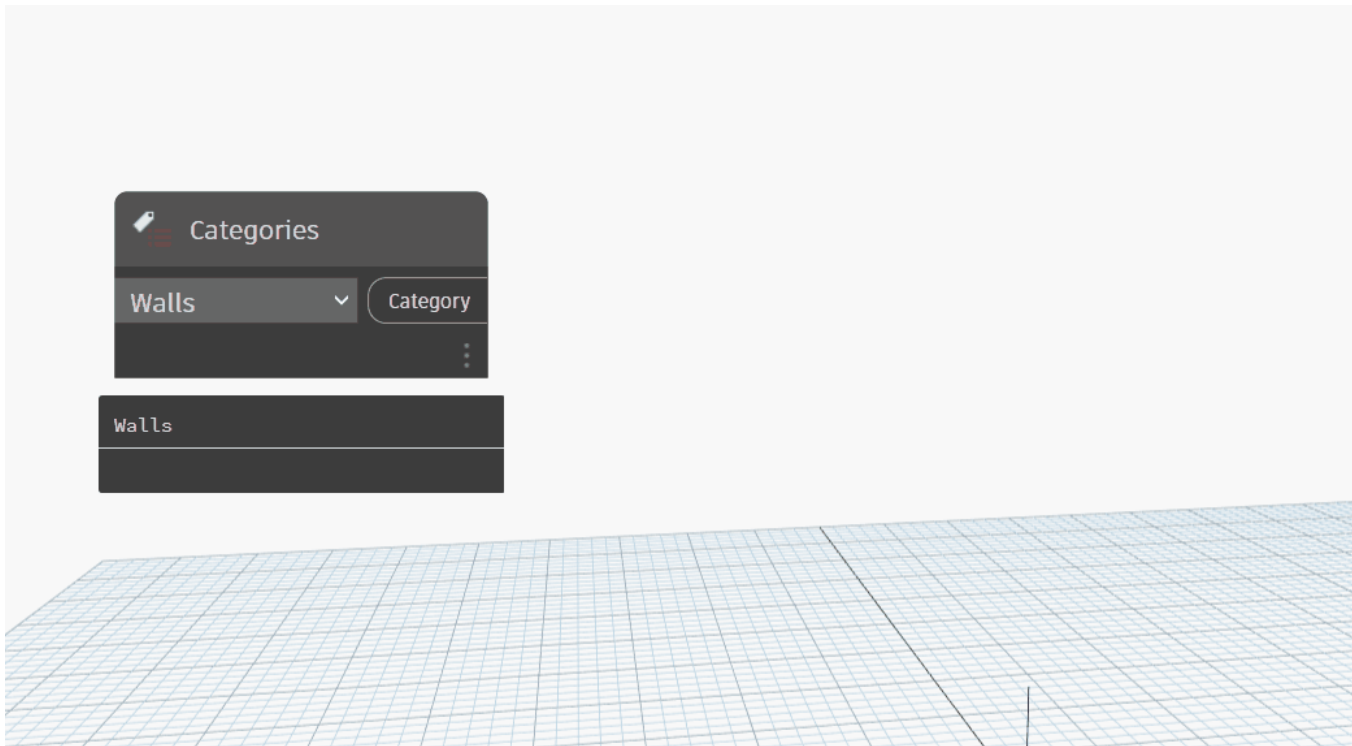
Unless you are in
the initial release of
Revit 2023

Unless



So now this is my suggested method

Using Category Id as those are not supposed to change



Autodesk Suggests

To “use dropdowns as they are fixed in all supported versions* of Revit”

Now that drop down's are static in all supported Dynamo for Revit releases, I'm thinking migrating back to drop downs might be more stable overall; those IDs may change across Revit releases.

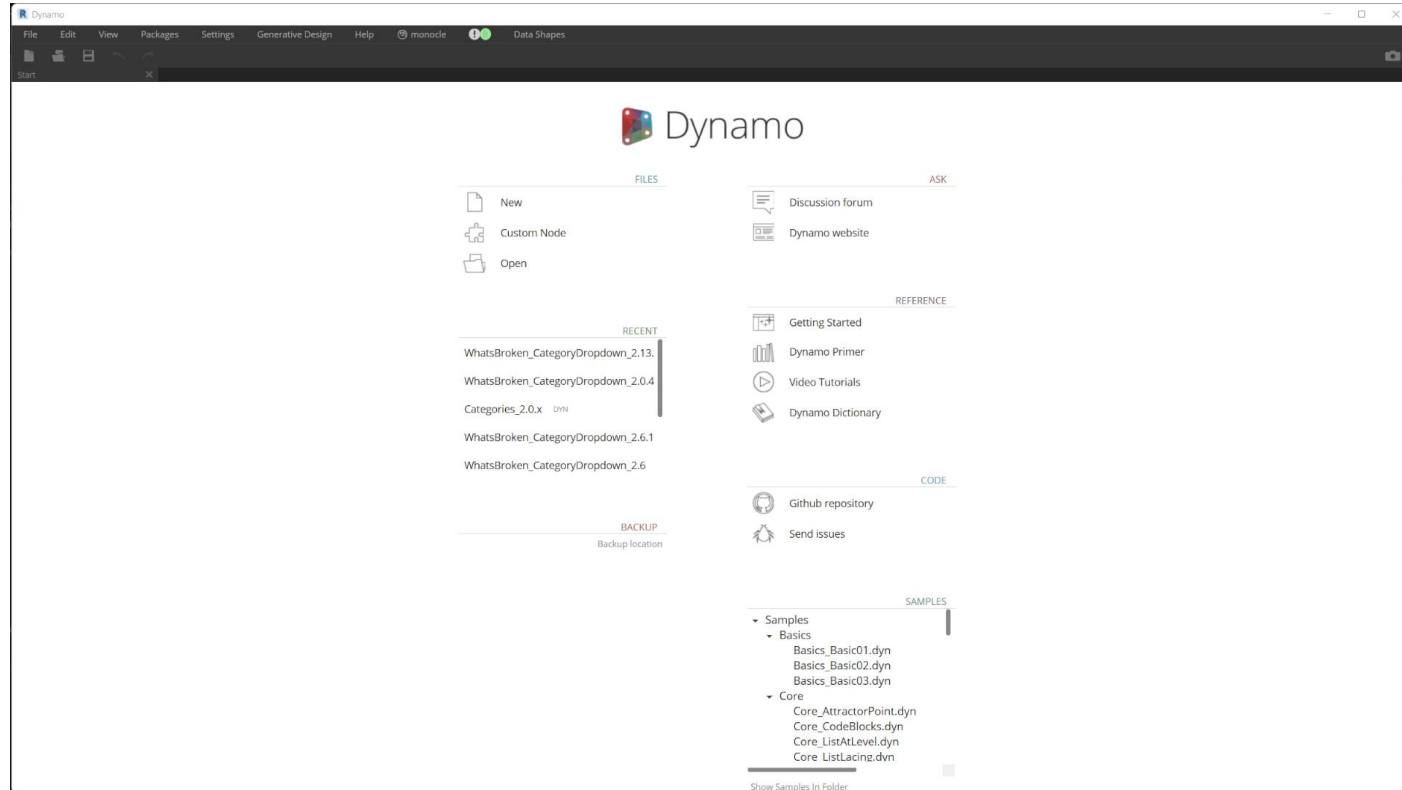


Reply

*supported meaning 2023, 2022, 2021 products

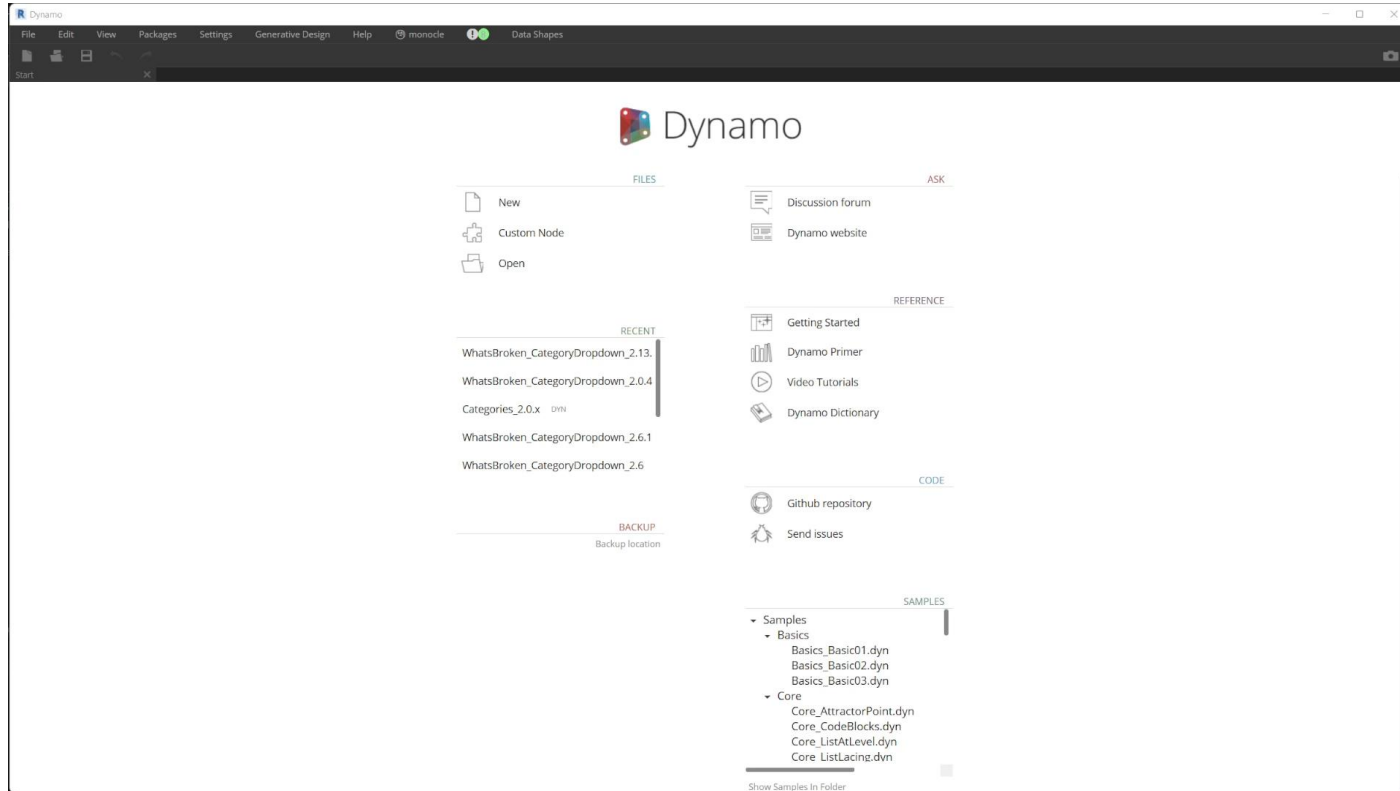
Let's Open a Dynamo Graph In Multiple “Supported” Versions

(Revit 2023/Dynamo 2.13.1 ⇄ Revit 2021 / Dynamo 2.6.1)



Let's Open a Dynamo Graph In Multiple “Supported” Versions

(Revit 2023/Dynamo 2.13.1 ⇄ Revit 2021 / Dynamo 2.6.1)

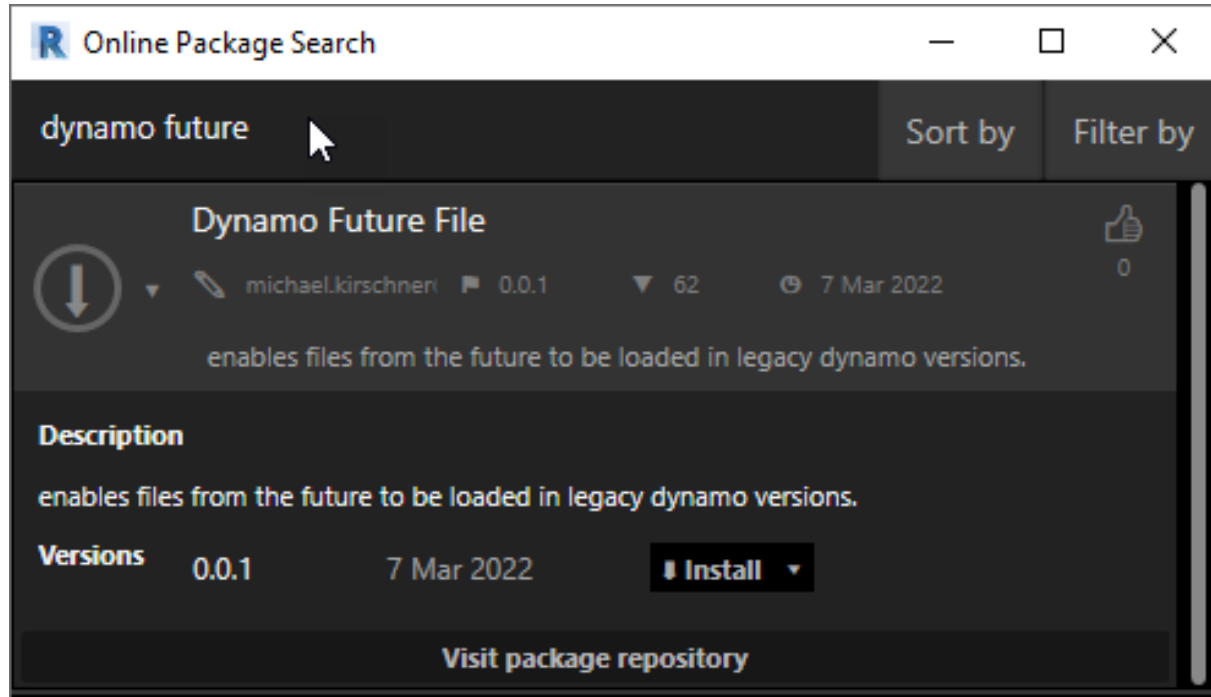


?

Input Dropdowns Were “Fixed” in Revit 2022 / Dynamo 2.12.1

But broken in all older versions of Dynamo

But there is a fix!



Python in Revit 2023 / Dynamo 2.13?

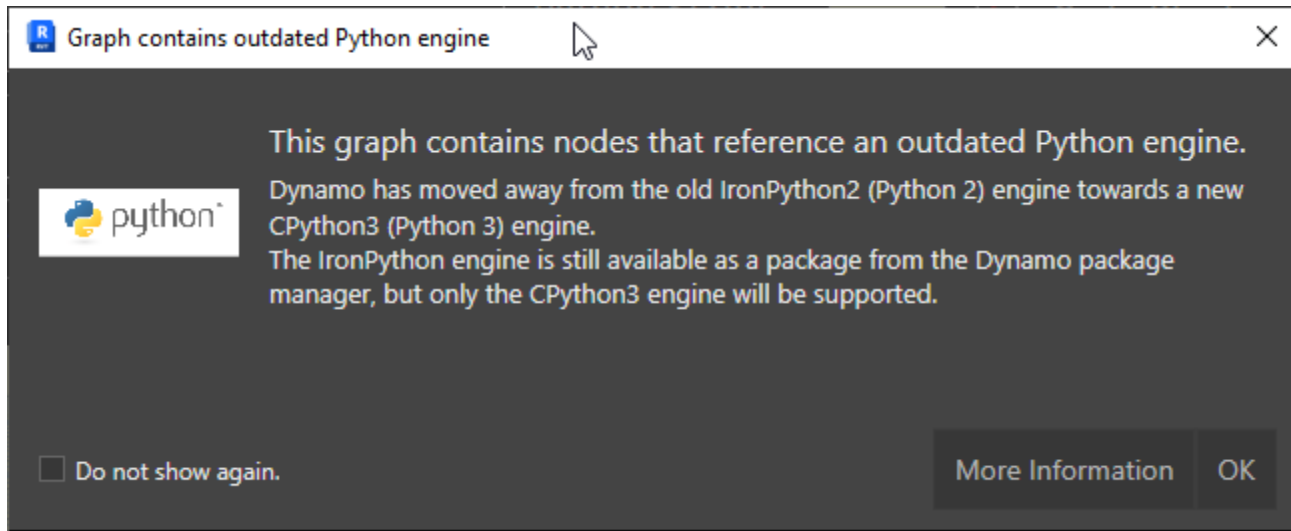
Is everything ok?



kinda




Dynamo Changed Python Engines

CPython3 is Now the Default






FILES

-  New
-  Custom Node
-  Open

RECENT

AddPrefixOrSuffixToViews_2.6.1 

WhatsBroken_CategoryDropdown_

WhatsBroken_CategoryDropdown_



WhatsBroken_CategoryDropdown_

WhatsBroken_CategoryDropdown_





BACKUP

Backup location



ASK

-  Discussion forum
-  Dynamo website

REFERENCE

-  Getting Started
-  Dynamo Primer
-  Video Tutorials
-  Dynamo Dictionary

CODE

-  Github repository
-  Send issues

SAMPLES

- ▾ Samples
 - ▾ Basics
 - Basics_Basic01.dyn
 - Basics_Basic02.dyn
 - Basics_Basic03.dyn
 - ▾ Core
 - Core_AttractorPoint.dyn

Iron Python 2.7



d/s



Iron Python 2.7

archi+lab



Genius loci

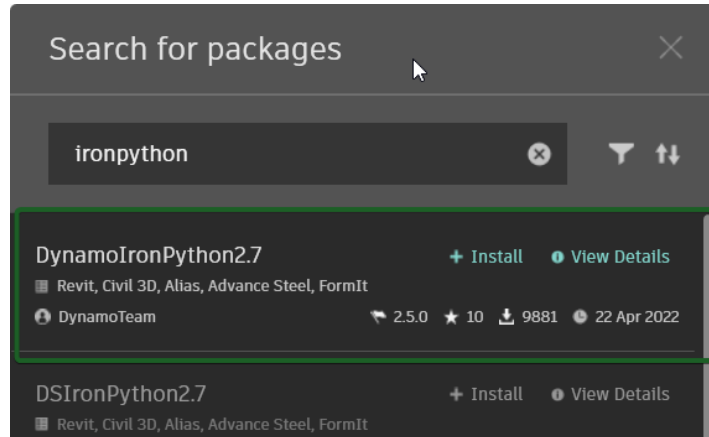


And a lot more!

IronPython 2.7

Can still be installed

- Install from the package manager
- Decision was made due to the team behind iron python not updating 2.x any longer (meaning no more security fixes)
- Basically, install at your own risk 😬

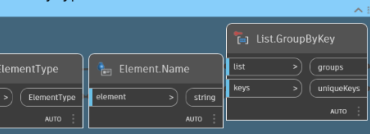


**That's it for broken
stuff**

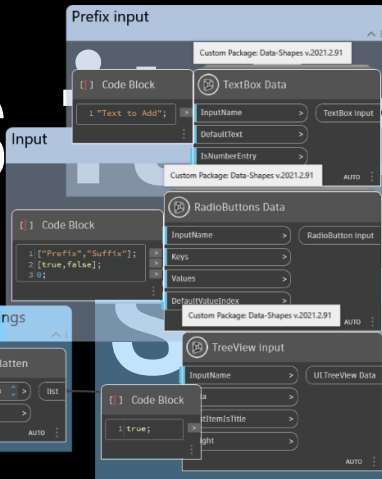
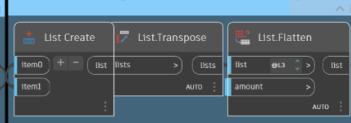
That's

for broken

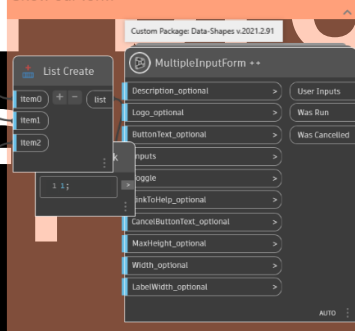
views by type



"Weave" lists together so we have headings



Show our form



Our outputs from our form

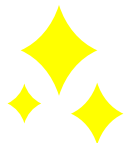


If there is a new prefix, the

For now.



Where are we



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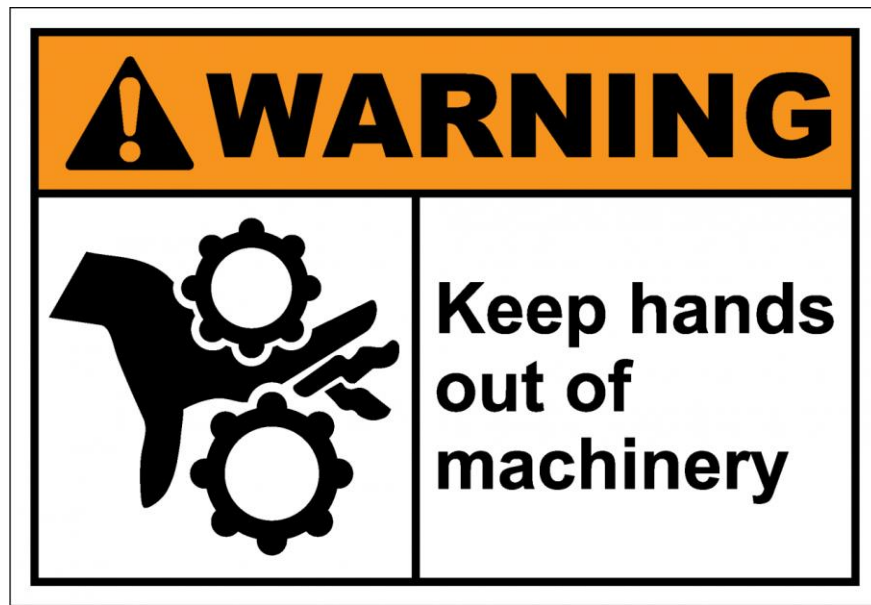
Using Dynamo has many different considerations. This part we will talk about ways to make it way better.

live demo

Live Demo of New Features

The Plan

- Graph Properties
- Annotation Enhancements
- Dynamo Player Enhancements
- All while making a keynote color coder graph.



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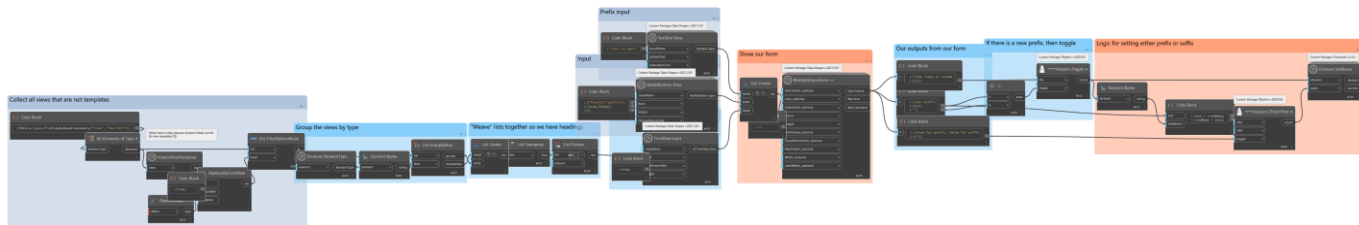
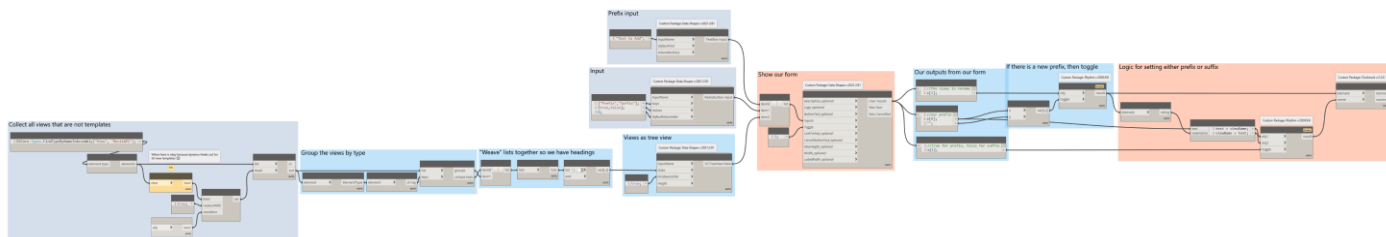
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Upgrading Dynamo Graphs



live demo

Don't Map Packages to Network Drives



Why?

github.com/DynamoDS/Dynamo/wiki/Release-Notes

- Volume conversion fixed in "Convert Between Units" node

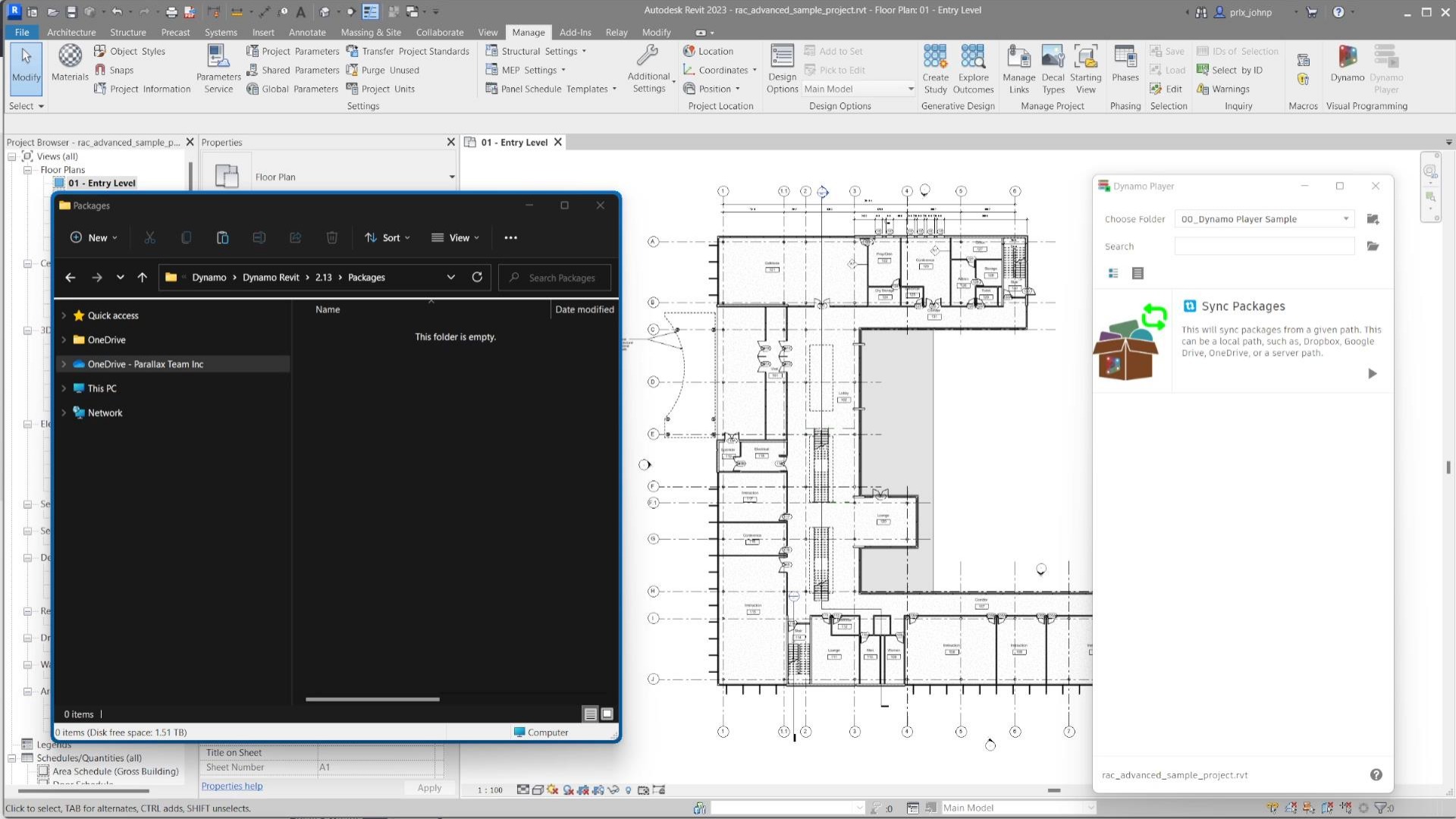
Known Issues:

- For custom nodes, using dot-notation in node Names or Categories will result in additional nested sub-categories. The "." will work as a delimiter to determine the additional hierarchy. This is new behavior in the library for Dynamo 2.0.
- Dynamo 2.0 has a conflict with Revit 2018.2's implementation of PnID Modeler resulting in a blank library browser pane. This issue is not present in 2018.1 or 2018.3, or Revit 2019, just 2018.2. If you want to use 2.0 with Revit 2018.2, you will need to remove the manifest file C:\Program Files\Autodesk\Revit 2018\AddIns\PnIDModeler\PnIDModeler.addin
- If the network drive pointed to by "Manage Node and Package paths" is > 1TB in size loading Dynamo may take a minute or more, irrespective of actual package size. We recommend drive size of 100GB or smaller.

Best Practice

Use the built-in Dynamo Packages location and pull packages in

Using Dynamo

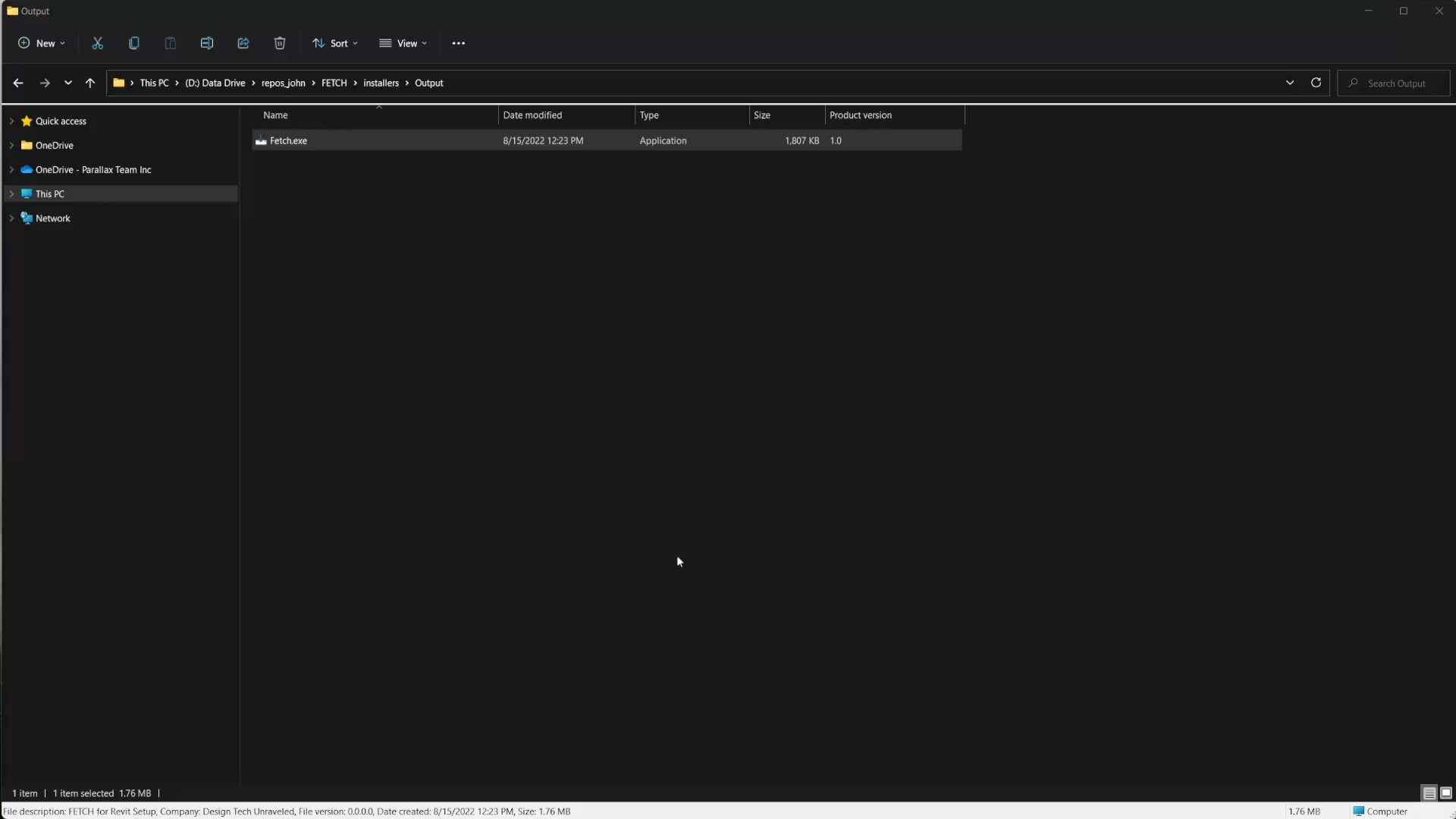


Or..

On Revit Startup with a Custom Plugin

fetch for Revit

a Revit plugin to enable simple package duplications from
(locally accessible) folders



- > ★ Quick access
- > 📁 OneDrive
- > ☁ OneDrive - Parallax Team Inc
- > 🖥 This PC
- > 🌐 Network

Name	Date modified	Type	Size	Product version
📄 Fetch.exe	8/15/2022 12:23 PM	Application	1,807 KB	1.0

Other Options for Syncing Packages

Including (but not limited to)

- Windows Startup Scripts
 - Occurs at User Logon
- Utilizing Your Deployment Tools
 - Parallax Uses Pragmatic Praxis (ask aaron for more info in the exhibit hall)
- ~~• Emailing your users every morning to copy new Dynamo packages~~

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Shipping Your Scripts

**In Revit 2023, Use
all the New Stuff in
Dynamo Player**

Dynamo Player 2.13

Use These Features Specifically

- Mapped Folders
 - Different folders for different tasks
- Graph Properties
 - Include a description and thumbnail!
- Pinned Notes to Nodes
 - Give your user more context
- Include extra metadata
 - regarding package use, expected parameters, etc. Get creative!

Investigate Other Ways to Utilize DYNs

Orkestra

<https://www.orkestra.online/>

- From the creators of the Data-Shapes Dynamo package
- Offers free tier and premium tier
- Deploy your Dynamo graphs to the cloud and sync to a ribbon in Revit, Civil3d and others
- Premium version handles packages for you



Create, deploy & scale Dynamo scripts like never before

 **REVIT** **Civil3D** **Dynamo** **RHINO**[WHAT ORKESTRA CAN DO FOR YOU](#)

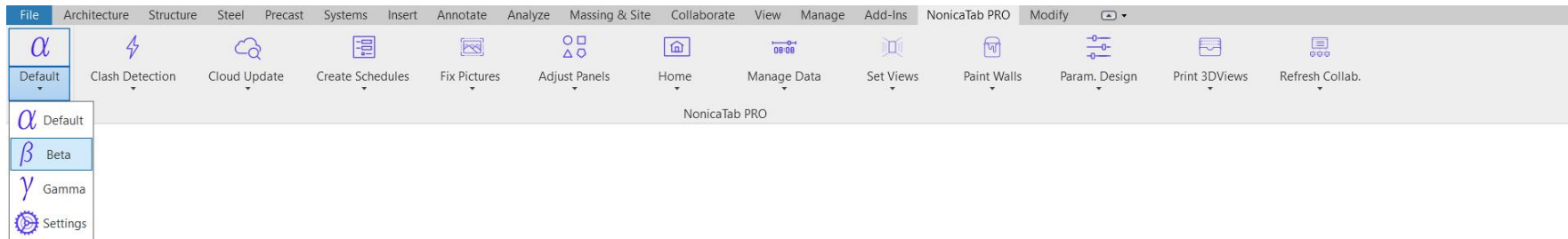
NonicaTab

<https://nonica.io/>

- Nonica allows you to add Dynamo graphs directly to your ribbon.
- Free plan includes 12 Dynamo graphs as buttons
- Has premium tier that includes additional features

NonicaTab

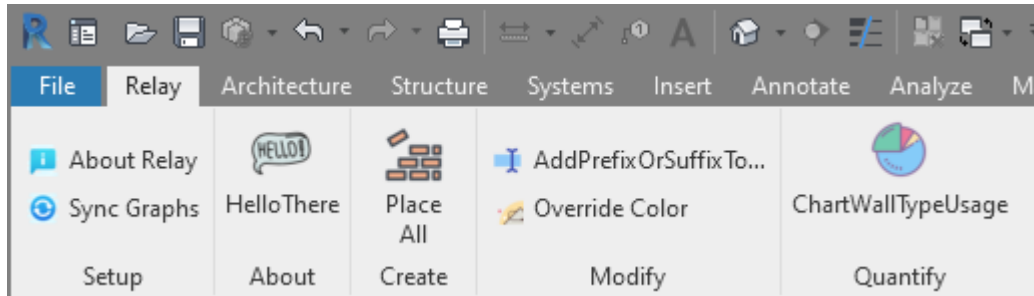
<https://nonica.io/>



Relay

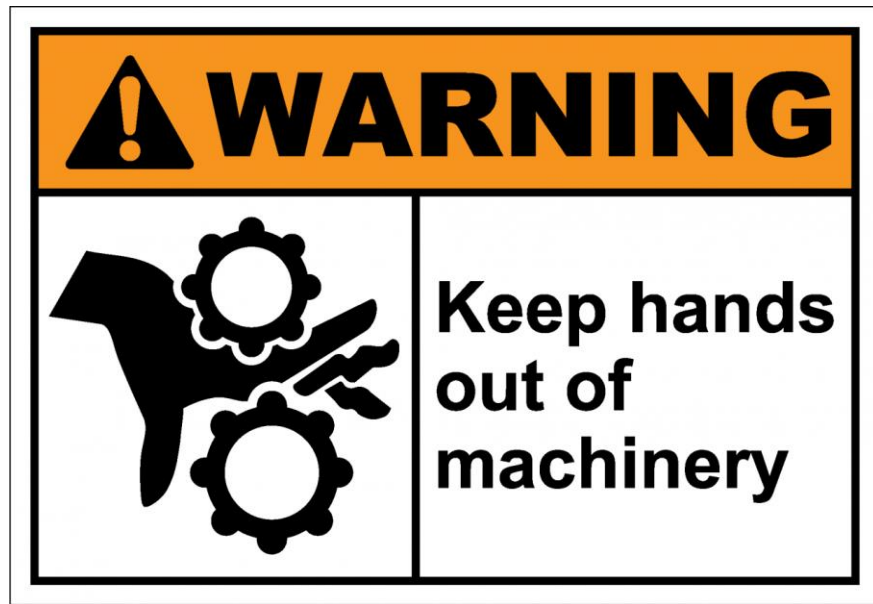
<https://github.com/johnpierson/Relay>

- Relay adds Dynamo graphs to the ribbon as well.
- Reliant on folder structure
- Open-Source (free) with limited support
- The result of me getting curious how to add Dynamo graphs to the ribbon after seeing it be done a lot.



Live Demo of Relay

- Syncing Graphs
- Running Graphs
- Opening the hood to the graphs 😎



Closing Thoughts



In Order to Make Your Dynamo Journey a Successful One

Document | Test | Share

Why Share?



Carl Storms
@theBIMsider

Quote of the conference from @60secondrevit "If you are generous your world might just get a whole lot bigger!"

And the @UKDynUG #DynamoDay Intermediate workshop kicks off to a packed house & smiling @ThatBIMthing & @60secondrevit



jean glenn @60secondrevit - Nov 14, 2017
Finally got to meet this guy at #AU2017! @albertotono3



Hanging out with @Twiceroadsfool ! #AU2017



**“No one is going to know
what you can do if you do
not talk about it.”
-Adam Savage**



Thank You

John Pierson

@johntpierson | parallaxteam.com | designtechunraveled.com



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