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Managing Revit Warnings with Dynamo

Karen Nolan - Allies and Morrison

Functions of this Dynamo Audit definition

Report model metrics

- File Size
- No. of warnings, views, design options, groups, families
- Warning types and count

Warning management

- Duplicates a 3D view in the model for each different warning type
- Names the view according to the warning type
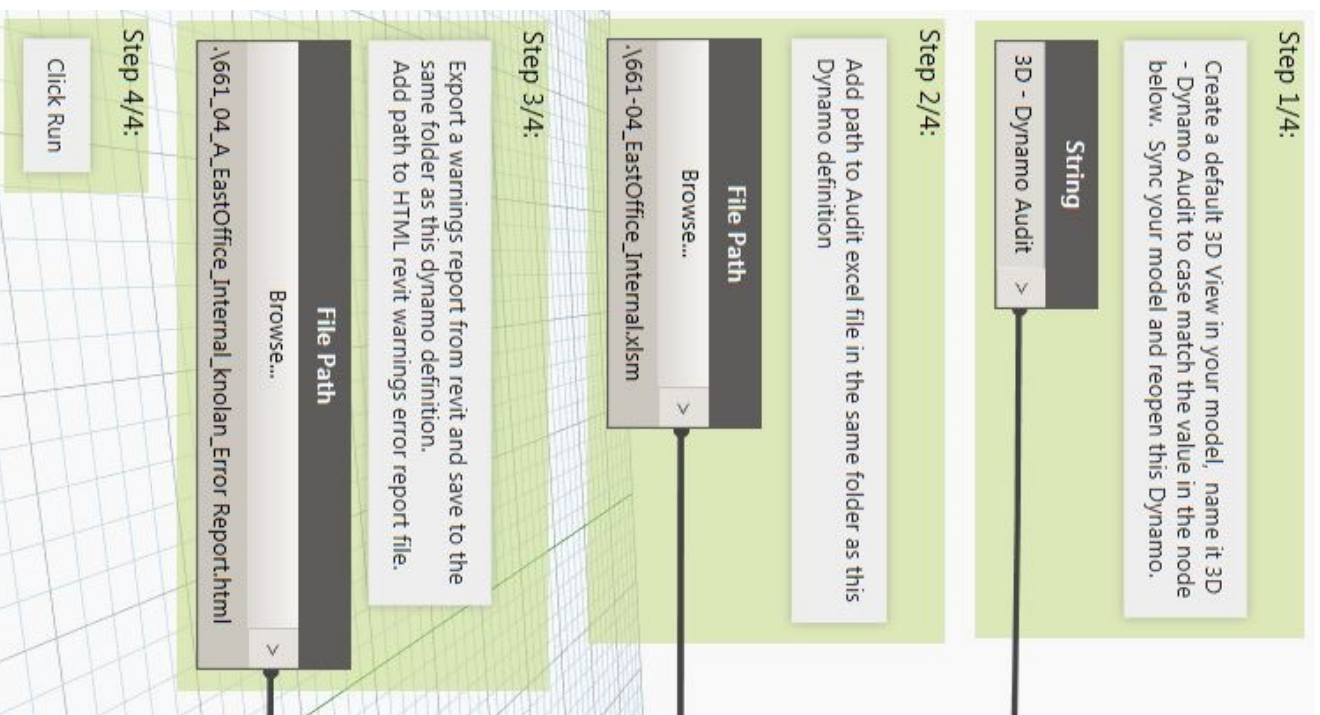- Isolates the elements that have that warning

Dynamo version 1.2.0

Dynamo packages used:

- **Bakery** – Luke Johnson / What Revit Wants @lukeyjohnson
- **SpringNodes** – Dimitar Venkov @5devene
- **LunchBox** – provingground.io @ProvingGroundIO
- **Clockwork** – Andreas Dieckmann @andydansy74
- **Rhythm** – John Pierson EvolveLAB @60secondrevit

Custom nodes created:

• Get All Views (similar available in archi-lab package)
• Warnings – Severe
• Warnings – Moderate
• Warnings – Mild
• Warnings List Match & Count

Step 1/4:

Create a default 3D View in your model, name it 3D - Dynamo Audit to case match the value in the node below. Sync your model and reopen this Dynamo.

String

3D - Dynamo Audit ∨

Step 2/4:

Add path to Audit excel file in the same folder as this Dynamo definition

File Path

Browse...

.\661-04_EastOffice_Internal.xlsm ∨

Step 3/4:

Export a warnings report from revit and save to the same folder as this dynamo definition.
Add path to HTML revit warnings error report file.

File Path

Browse...

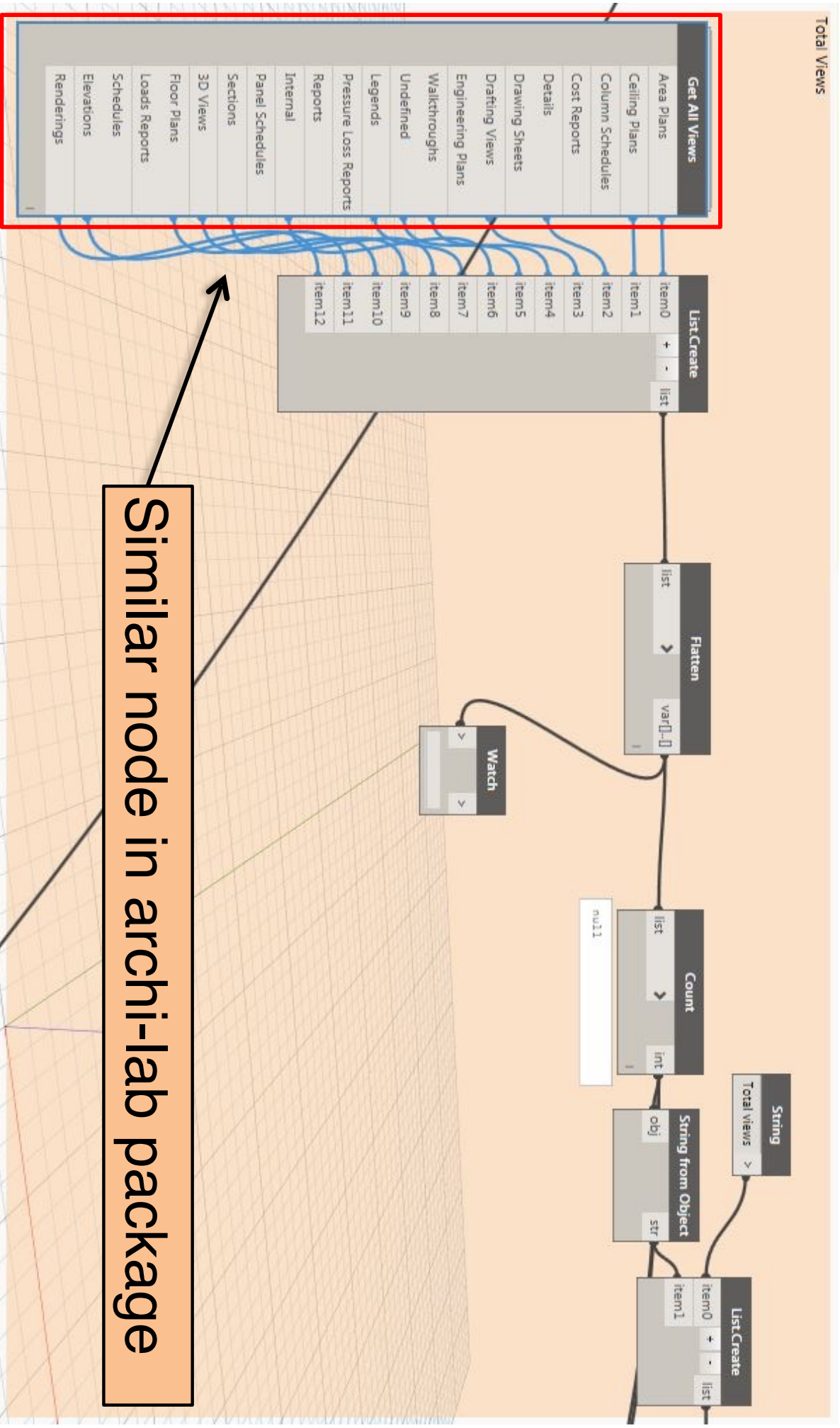.\661_04_A_EastOffice_Internal_knolan_Error Report.html ∨

Step 4/4:

Click Run

Current User Input / Action:

- 3D View '3D – Dynamo Audit'
- Export warnings report to same folder as definition
- Add file paths
- Click Run!

Future goals

- User input interface for Revit 2017 Dynamo player …

Metrics...

Similar node in archi-lab package
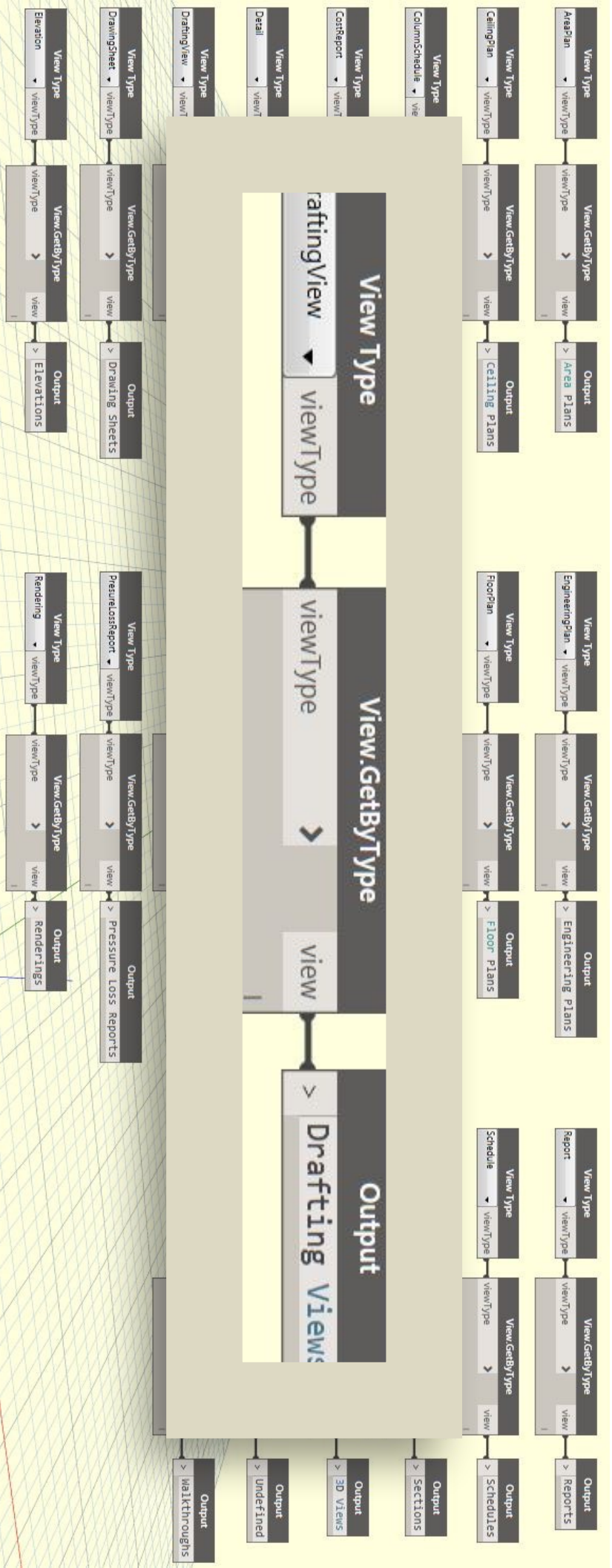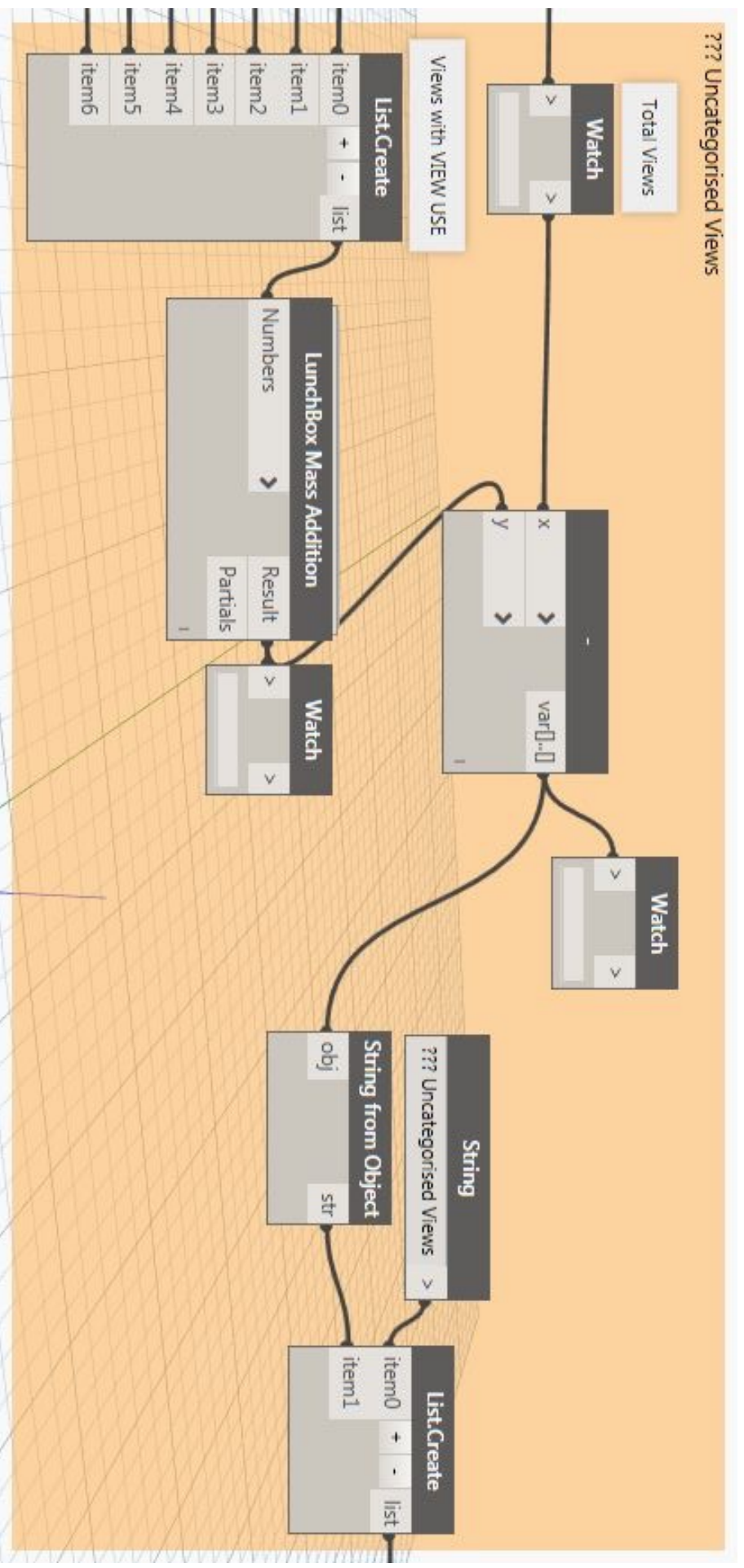
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Inside the Get All Views custom node
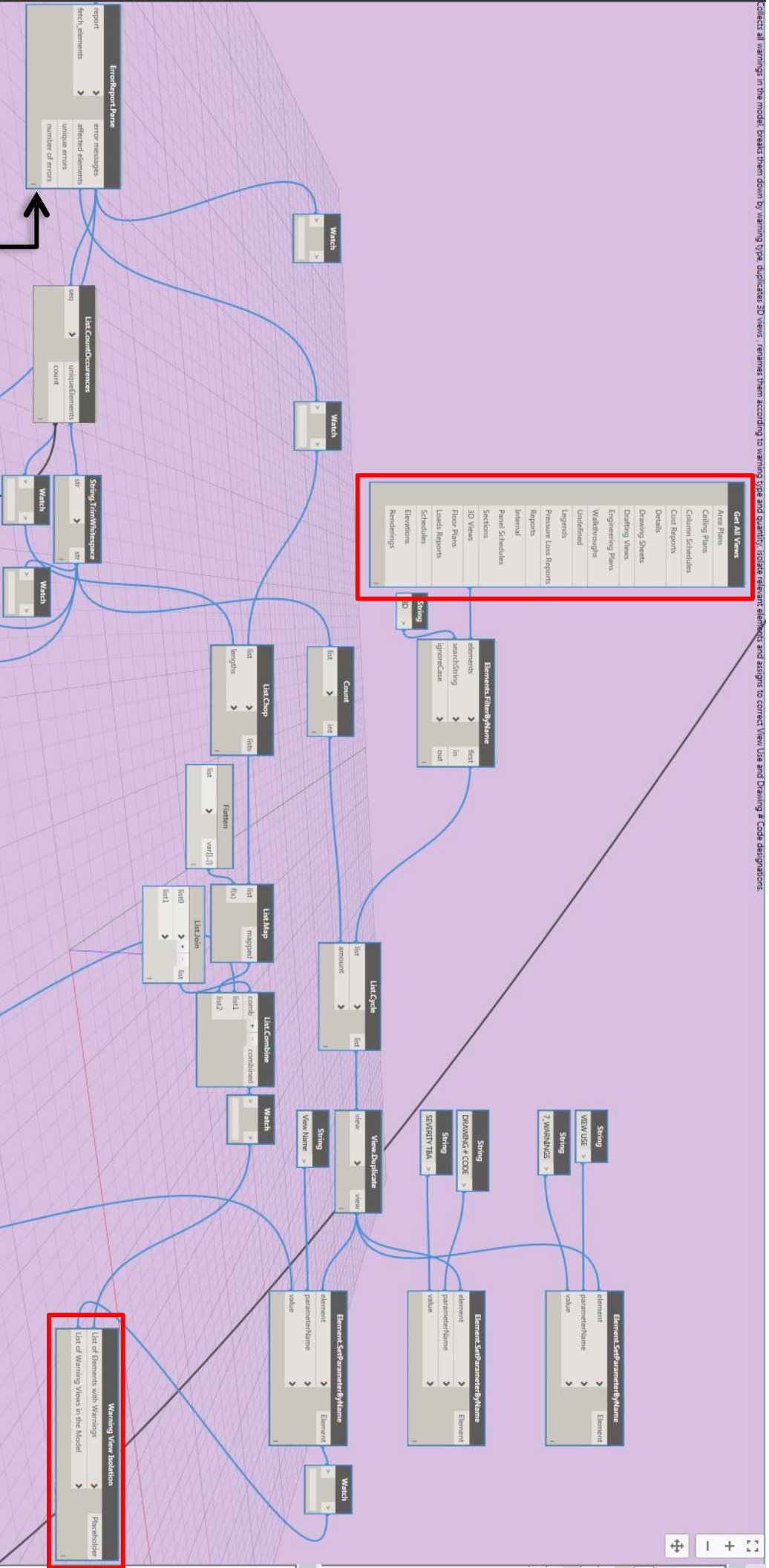
OOTB Nodes
View Type >> View.GetByType >> Output

Calculates uncategorised views by using the LunchBox Mass Addition node and subtracting the number of views with a view use from the number of total views

Everything hinges on this node from Bakery!

1. Adds brackets around warning count

Warning View Naming - Adds parentheses to error counts and removes grand total/count from end.

Warning View Naming - Removes/characters from warning type names which can't be included in revit 3D view names

Warning View Naming - Combines All

Code Block
`( )`

Code Block
`" " ;`

Code Block
a b c a+b+c ;

Code Block
`[^a-zA-Z0-9_]" ;`

Code Block
`" " ;`

String.ReplaceRegularExpression
regex
string(s)
replacement
bool

List.Create
item0
item1
+
-
list

List.Transpose
lists
lists

Code Block
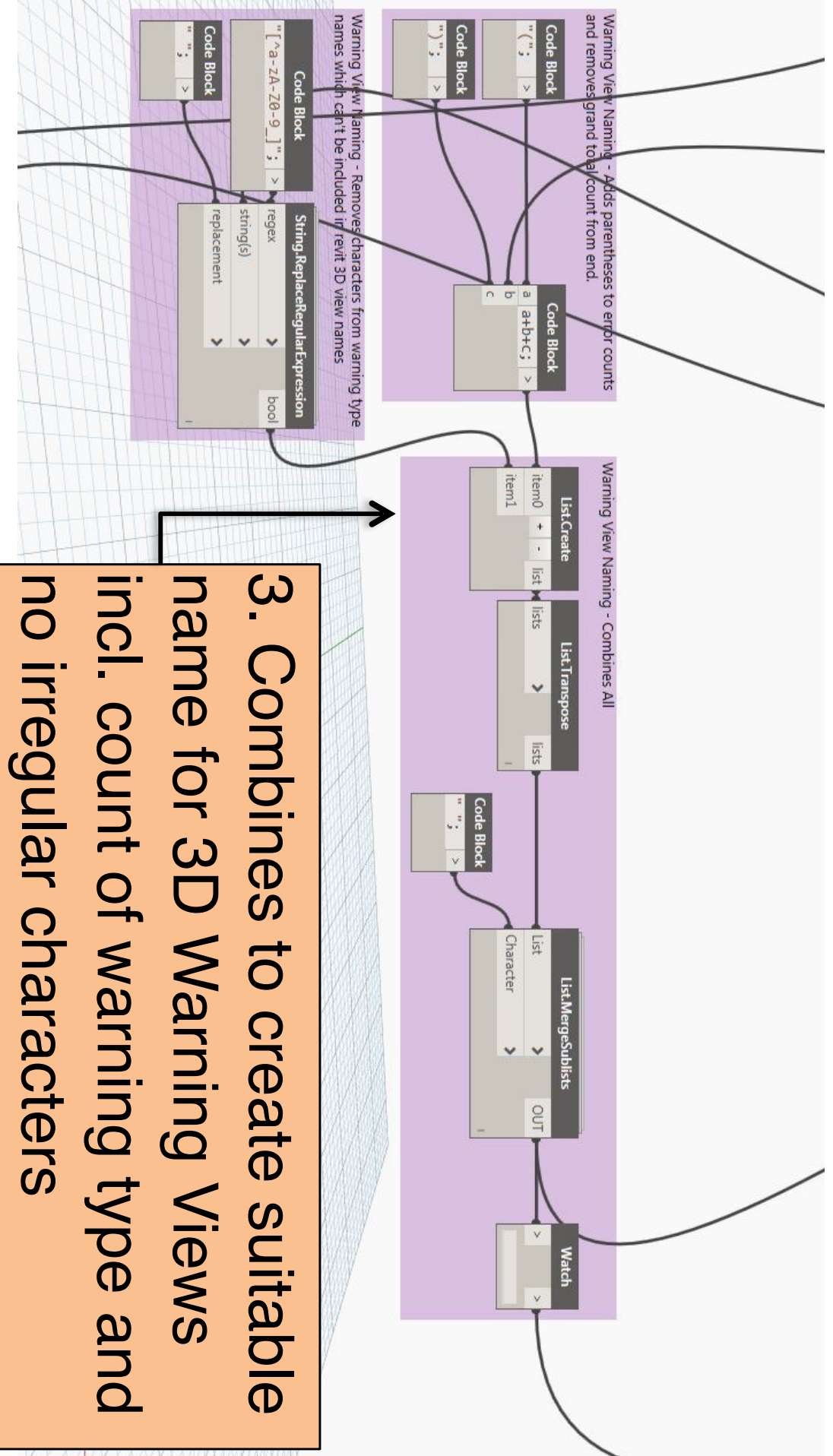`" " ;`

List.MergeSublists
List
Character
OUT

Watch

Nodes for naming the 3D warning views

2. Removes non-word characters from the warnings names from the error report html file

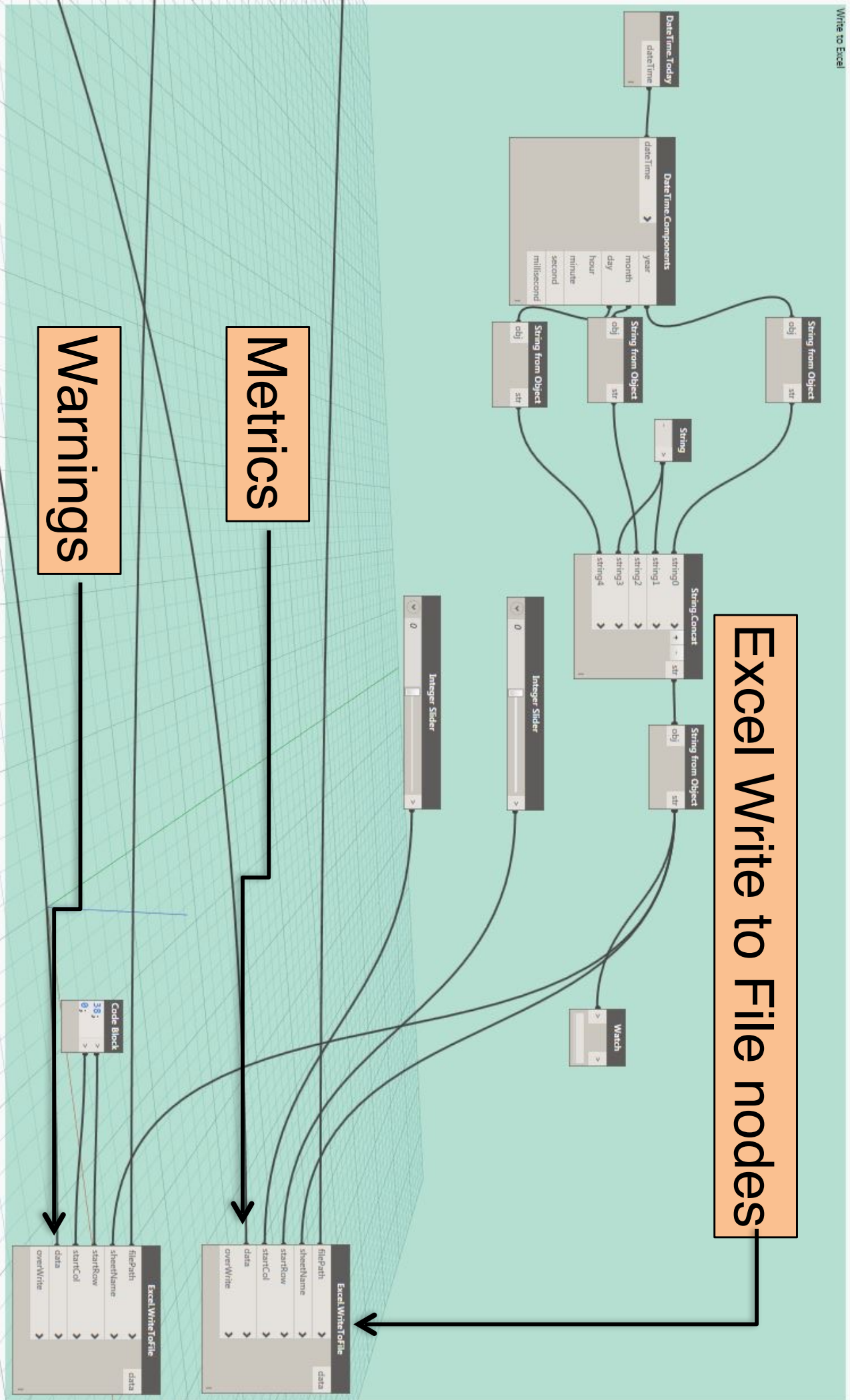# Nodes for naming the 3D warning views

Warning View Naming - Adds parentheses to error counts and removes grand total/count from end.

Warning View Naming - Removes characters from warning type names which can't be included in revit 3D view names

Warning View Naming - Combines All

3. Combines to create suitable name for 3D Warning Views incl. count of warning type and no irregular characters

Warnings

Metrics

Excel Write to File nodes

Quirks…

• the excel file and the warnings report have to be in the same folder as the definition for it to work…even though I add a file path??

• the model needs to be synced after running the definition but before closing it…otherwise the model crashes

• the node to change temporary hide/isolate view settings doesn't work in this definition, because the views which it needs to apply to are new and created in this definition, so I created a separate definition.

Future plans…

Model metrics
- Cut out the prep needed;
- Access the warnings report &
- Create a 3D default view from the definition

Warning management
- Don't create a view for warnings that don't have elements which can be isolated in a 3D view
- Overwrite previous warning views
- Set view isolate to permanent automatically