pyRevit addins

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1. PYSTRUCTURE - GENERAL PANEL

1.1. Family Type Renamer

This addin enables user to renames family types en masse according to the intrinsic parameter value

<u>How To?</u>

- Select a desired category from dropdow list

- Select a family from drop down list

- Choose appropriate format for naming. and the required parameter based on which family types will be renamed

- Click to see the renaming format

- The new names of family types can be seen in view box below

- If satisfied press this button to rename the family types
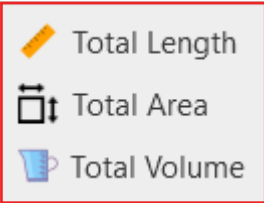
<u>Why Use?</u>

- Often user manually renames family types based parameter value which is error prone and cumbersome

- This addin allows for standardisation of family names used with in an organisation

- Prevent duplication of same family types

1.2. Total Length /Area/Volume

Measure total length/Area/Volume of selected items

How To?

- Select elements which has to be measured

- Press the respective button based on quantity to be measured

- Output is calculated based on current project units

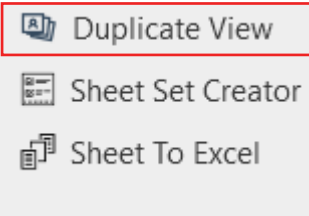- This add-ins are activated only on selection of elements

Why use?

- Easiest way to perform this action, unless you have some thing like volume button made for structure as shown in the next page.

1.3. Duplicate View

Allows user to duplicate any view 'n' number of times, 'n' being a user input integer. This add-in is only a slight modification of pyrevit add-in 'Duplicate View'. I simply added extra functionality for number of views to be created

How To?

- Clicking the button opens window to select views

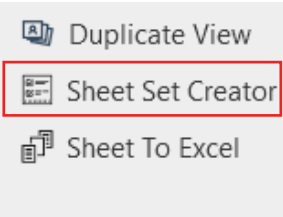- Then user is asked to input number of times views to be duplicated

Why use?

- Multiple views can be duplicated multiple times very easily

1.4. Sheet Set Creator

Sheets or views to printed are often made into sheet sets.
This add-in allows user to create sheet set directly from project browser

How To?

- Select views/sheets from project browser

- Click Sheet set creator add-in

- A prompt asking for name will appear. If user does not want to assign any special name, simply press 'OK' and continue.

- Selected sheets in project browser will be created as a sheet set. This can be seen by opening print setup. If no special name is assigned the default name of "Default set-1" is used
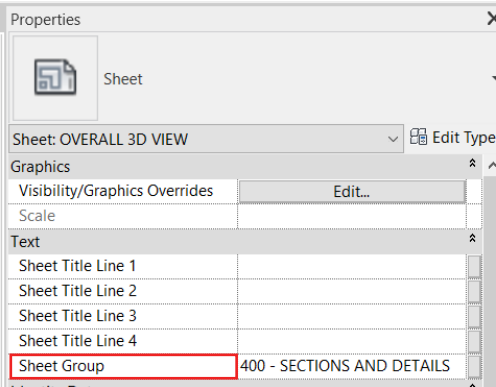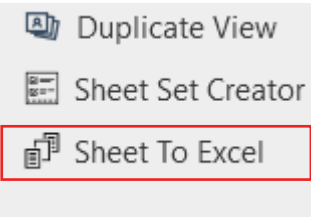
Why use?

- Multiple sheet sets can be created by easily navigating through project browser

1.5. Sheet to Excel

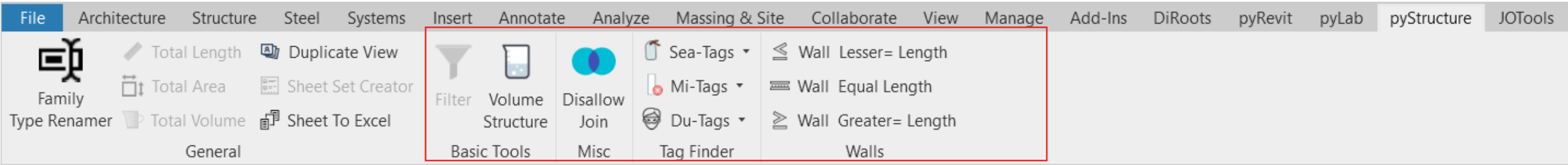This add-in reads sheet data into an excel

How To?

- Simply click the add-in to write sheet data from revit to excel

- A prompt asking for sheet group parameter name will appear. This can be obtained from the sheets family instance parameters as shown below.

Why use?

- This tool aids in easy data collection for preparation of meta data and e-transmittal.
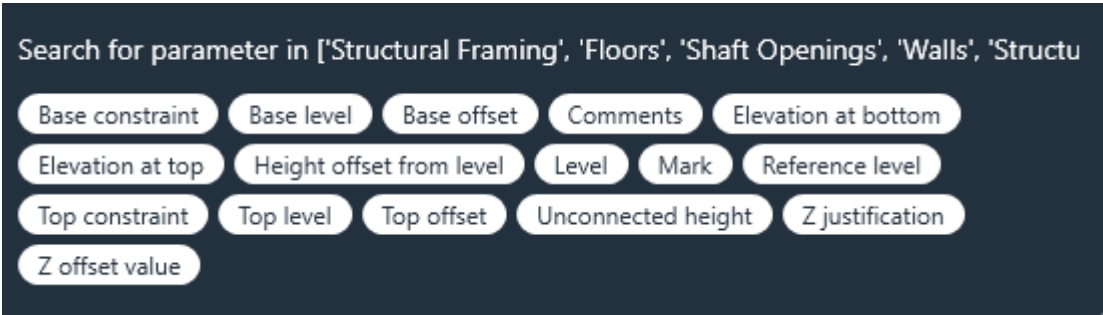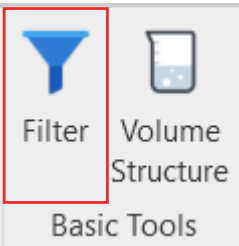
2. PYSTRUCTURE - STRUCTURE PANEL

2.1. Filter (Basic Tools)

<u>How To?</u>

- Select an element in Revit and press Filter button. A window as shown below pops up. This window contains generic instance parameters which are found in floors,columns,walls,beams and openings.

- Select a parameter which is valid to the selected element

- This add in will then select all elements of same category in **current view** which matches the selected parameter assigned value

- Still confused? Select one column and press the add in. Then select Top offset button. Now all columns in **current view** which matches the top offset of selected column is selected
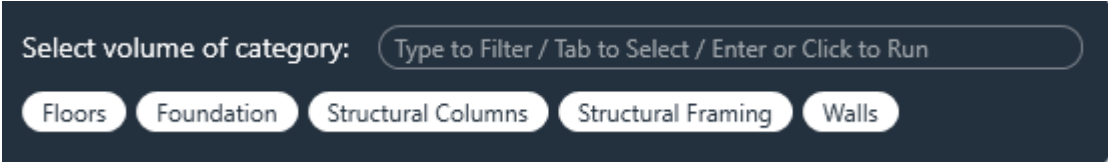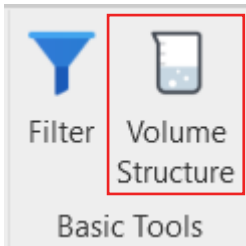
<u>Why Use?</u>

- Often elements in revit have different parametric value depending on location, viz. 'elevation at top' of a foundation. Using this filter it is easy to filter out instances of foundation which matches selected foundation's 'elevation at top' value.

- This can save a lot of time and helps create very accurate BIM model

2.2. Total Volume (Basic Tools)

This is a customised version of total volume for structure. Please note that this add-in works in **current view.**

<u>How To?</u>

- Click the total volume button and the following prompt appears asking for category. Choose the relevant category whose volume is to be measured. Then the add-in will calculate volume of the selected category which are in current view.

- But this can cause confusion if different types within a family has different materials. Say for e.g. steel columns and concrete columns. In this case we can take advantage of current view requirement of this add-in. Simply isolate concrete columns in , then measure volume. Then isolate steel column and measure volume. In future upgrade of this add-in this multi step process will be combined to give a comprehensive output to user depending on family type

<u>Why Use?</u>

- Easiest way to measure volume
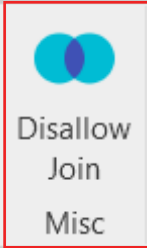
2.3. Disallow Join (Misc)

This add-in automates the process of disallow join at structural framing end for frames visible in **current view**

How To?

- Isolate the structure framing which user wishes to disallow join and then press the button. All frames visible will have its end joint disallowed

Why Use?

- Thanks to this add-in user no longer need to select individual frames end and disallow join.
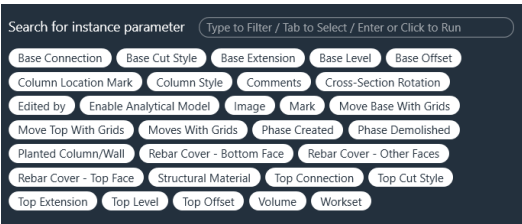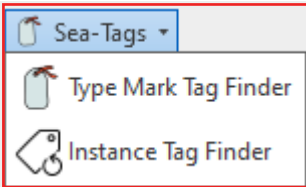
2.4. Sea-Tags (pull down)

This pull down houses add-ins which searches for tags, both type and instance parameters

How To?

- Type Mark finder searches for user input type mark in **current view.** Simply click the add-in and user is prompted to enter the tag to be searched. The search will be case insensitive.

- Instance tag finder searches for tags assigned under instance parameter. Upon inputting the target parameter string, a window asking for element category will appear. After choosing the required category the name of instance parameters for selected category will appear as shown

- Choose the appropriate parameter which hold the tag. The add-in will search for all elements of selected category in current view for matches.

Why Use?

- This is extremely useful as we often know the tag name but not the family type name and its location
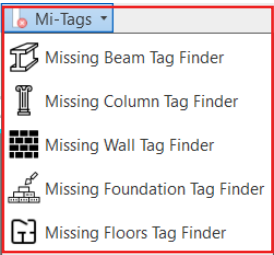
2.5. Mi-Tags (pull down)

This is an adaptation of a pyrevit add-in tailored for structure usage. As the name suggests it searches for beams, column,walls foundation and floors in **current view**

How To?

- Simply click the button and it will search in current view for respective category which has no associated tags

Why Use?

- Accurately catches elements with missing tags and saves precious time
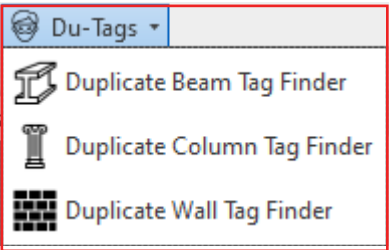
2.6. Du-Tags (pull down)

This add-in finds elements with duplicate tags. Same element having multiple tag which can create confusion and produce false drawing. Finding it manually is a very difficult task almost impossible particularly if two tags overlaps one over other

How To?

- Simply click the button and it will search in **current view** for and select elements which have duplicate tags

Why Use?

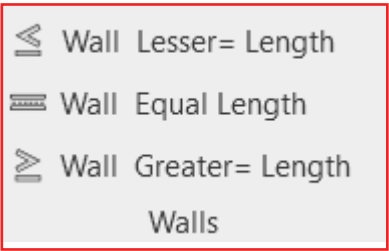- Accurately catches elements with duplicates tags and saves confusion

2.7. Walls Panel

This add-in searches and find walls based on user input for length based on various equality conditions

How To?

- Clicking any button in this panel prompts user to input a value in **meter** based on which search will be done, once again only for **current view**

- Button with '≤' symbol searches for wall in current view with less than & equal length of user input value. Similarly '≥' symbol button searches for walls in current view with length greater than & equal length and button with '=' length searches for walls which matches user input value

Why Use?

- Easily filter out walls based on equality and inequality criteria, particularly useful when shear walls of varying length has to be filtered.