The ‘Generate Parameters’ tool creates shared parameters for Length, Width, Height, Area and Volume for any given loadable family in Revit.

Not only it creates the parameters but populates their values as well.

It’s a one click process once you are in the family editor environment.

Please go through the following you tube video for detailed information:

https://youtu.be/9-Knwii7vUI

For any queries or help required, kindly send an email to along with the snapshots of errors and contextual information:

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As a prerequisite for this plugin to work, you need to setup the shared parameter file that has the definitions for shared parameters.

This tool could prove extremely useful particularly in modular or prefab projects that have hundreds of components as loadable families.

It's a conscious choice to create shared parameters instead of family parameters because we want the parameters to be schedulable and taggable.

Let's see it in action, we have a sample Revit file with a furniture family.

Right now, we can see that there is no information related to dimensions and quantities of this component.

The plugin is set up to work only in the family editor environment so that the user could have a look at the family geometry and its extents before running the plugin.

If we try to run the plugin in the project environment, it’ll prompt the user to open a family in the family editor environment.

So, let’s get into the family editor.

As we can see, the geometry of a family document could consist of simple solids to curvilinear complex forms or even nested families.

Our tool performs consistently in all these scenarios.

The way it works is that it wraps the entire geometric content into a single bounding box and then calculates the dimensions and quantities of that bounding box.

It calculates the length in the x axis, width in the y axis and height in the z axis.

It also calculates the areas in the horizontal and vertical planes.

By horizontal, we mean the xy plane and by vertical, we mean the xz plane.

It also calculates the volume of the bounding box.

And finally, the tool creates the corresponding shared parameters and assigns them the calculated values.

The values are made read only so that the users may not edit them inadvertently.

All this happens in a single click.

After running the tool successfully, we can load the family back into the project environment and as you can see, we have a family with all the required information as type parameters.

These parameters can be used in the schedules and tags.