# Revit Architecture: In Place Families

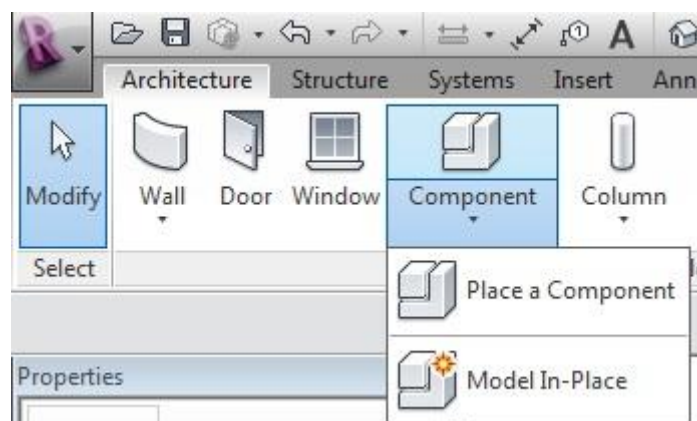## In this White Paper we will create an In Place Rafter Family.

All Revit Users

**In Place Family – Roof Rafter**

In Place Families are created in the project and are dependent on the model geometry (e.g., custom gutters, special trim, or built-in furniture, roof rafter). They are only available in the project in which you create them.

**Step 1:**

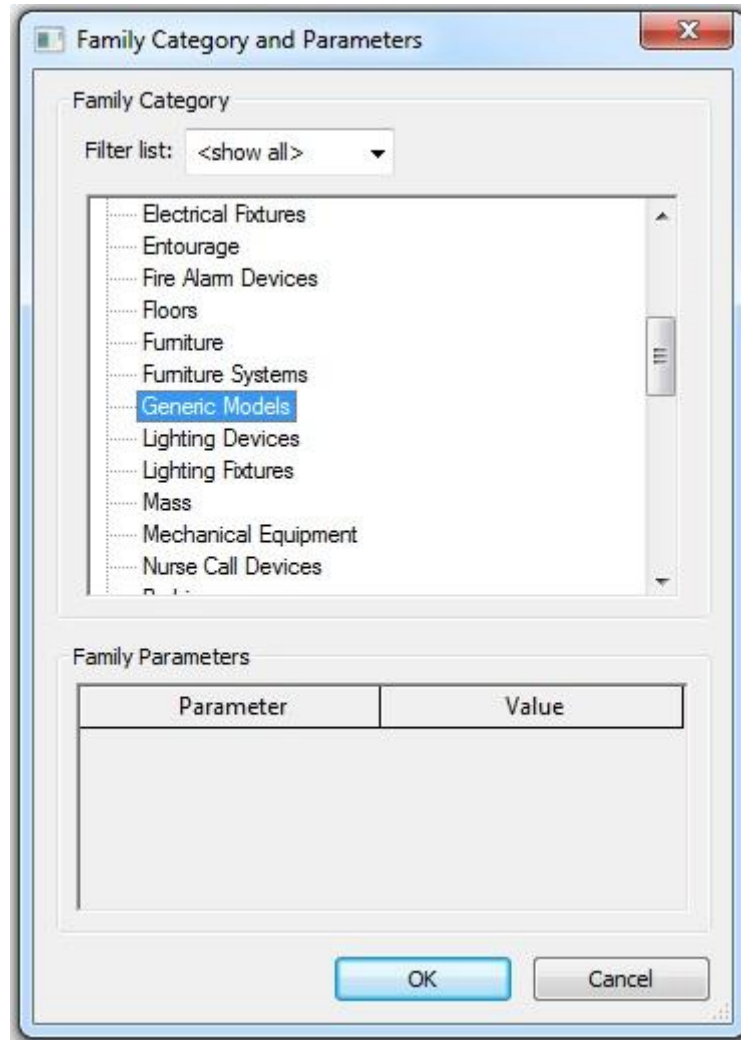Select the Model In-Place option form the Build Panel on the Ribbon (Fig 1).

**Fig 1:** Model In-Place



**Step 2:**

The Family Category and Parameters dialogue box will now open. Scroll down and select the Generic Models category (Fig 2).

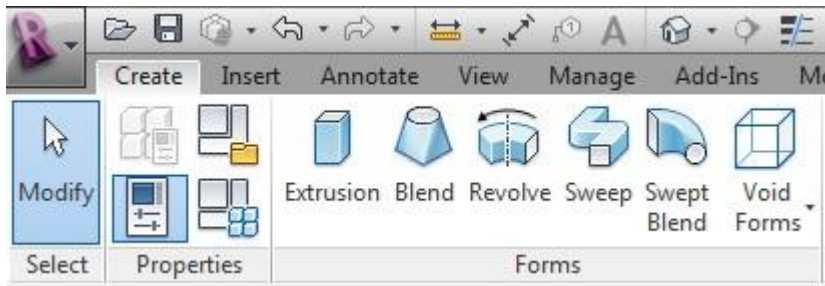**Fig 2:** Family Category and Parameters



**Step 3:**

After selecting the Generic Models category click OK and in the Name Dialogue that opens enter the name Roof Rafter and then click OK (Fig 3 below).

**Step 4:**

With the Create Tab on the Ribbon active select the Extrusion Tool from the Forms Panel (Fig 4).
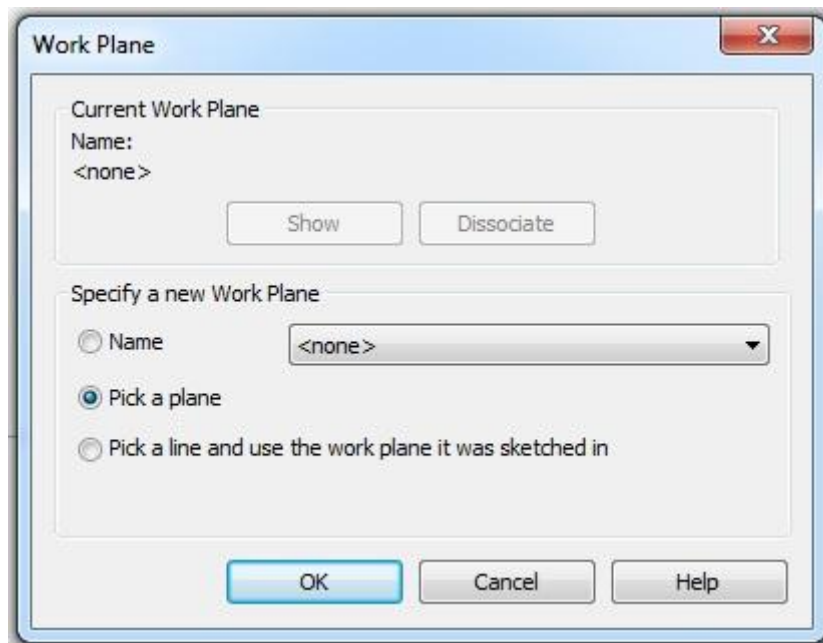
**Fig 4:** Extrusion Form



**Step 5:**

After selecting the extrusion tool a Work Plane Dialogue box will open. Tick the Pick a plane option (Fig 5).
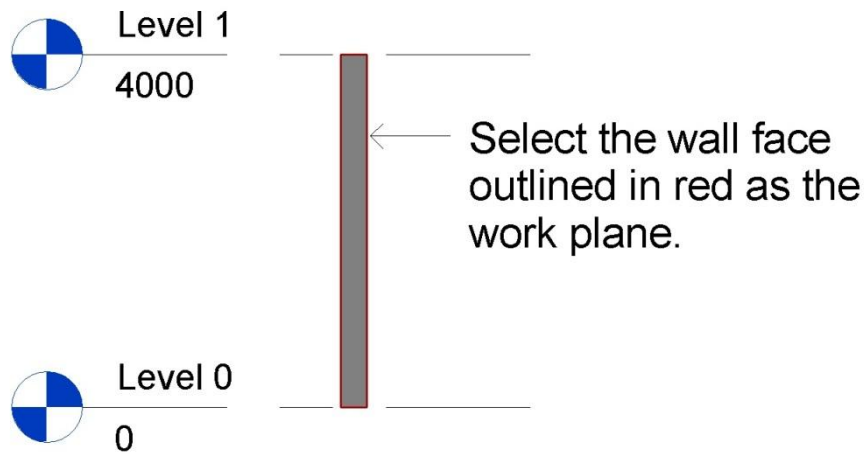
**Fig 5:** Work Plane

**Step 6:**

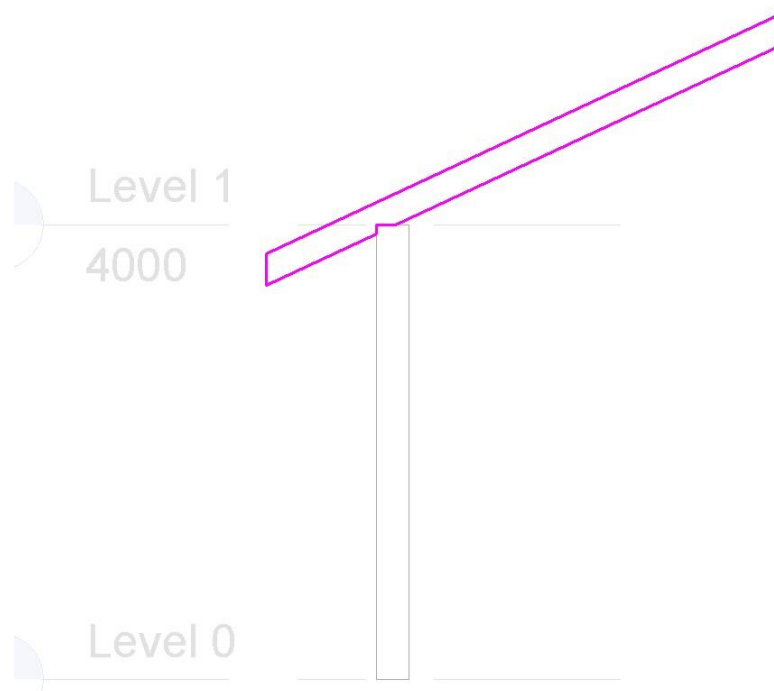Next select the front plane of the wall in the east elevation view as shown in Fig 6 below.

**Fig 6:** Select Work Plane



**Step 7:**

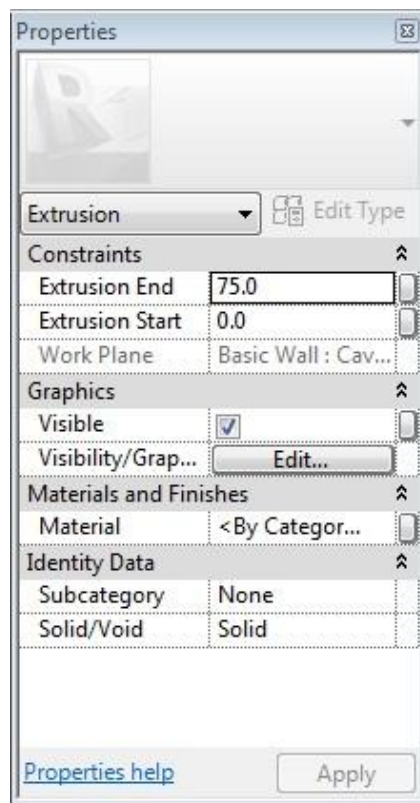Sketch the outline of the roof rafter extrusion as illustrated in Fig7.

**Fig 7:** Rafter Extrusion

**Step 8:**

Set the extrusion properties as illustrated in Fig 8. The extrusion start is set to 0.0 and the extrusion end is set to 75. This defines the rafter thickness to 75mm.
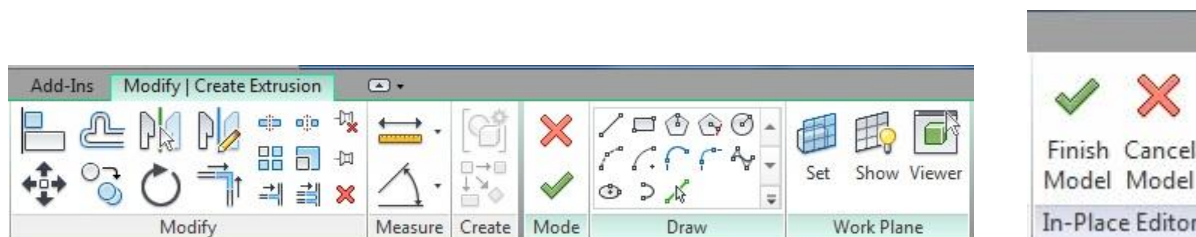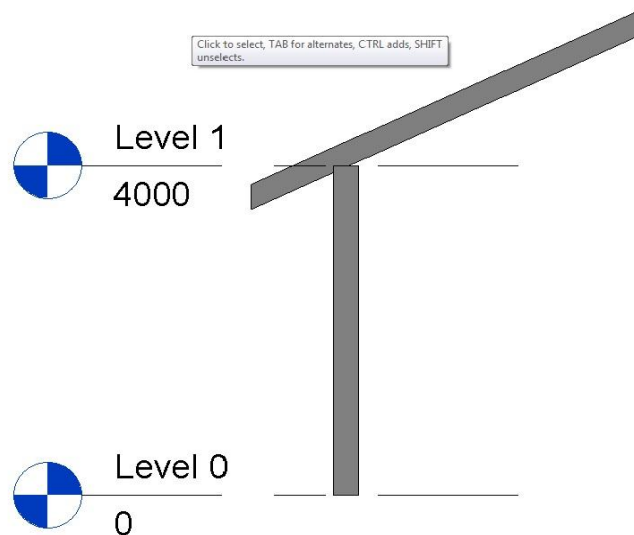
**Fig 8:** Extrusion Properties



**Step 9:**

Everything has a washed out appearance as shown in Fig 7. This is because you are in edit mode. To complete the In-Place rafter family click the green tick on the Mode Panel of the Ribbon and then click the green tick Finish Model on the In-Place Editor (Fig 9).
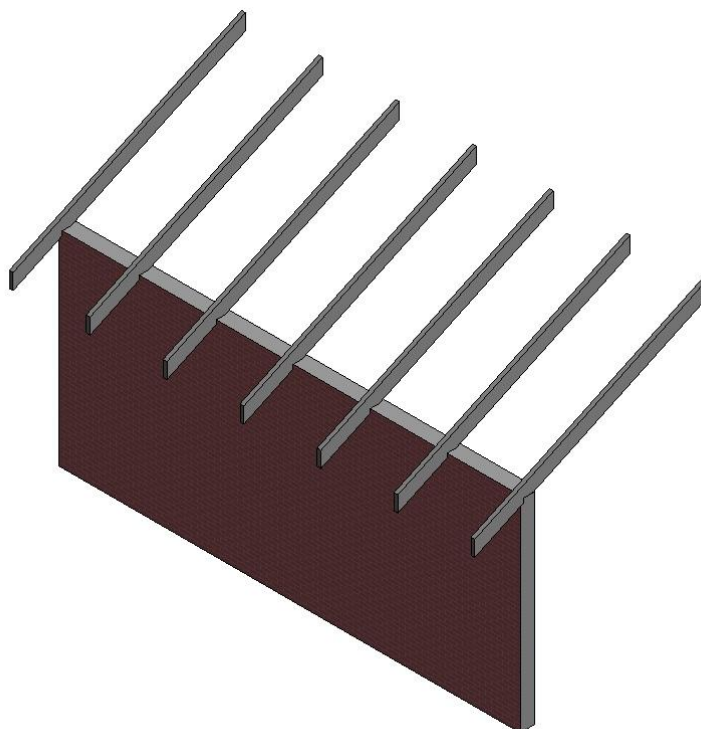
**Fig 9:** Exit Sketch/Edit Mode

**Fig 10:** Completed Rafter in Elevation View



**Fig 11:** Completed Rafter copied along wall in 3D View



You can apply a material to the rafters or try creating a parametric rafter to the same dimensions. I will do a step by step guide on these topics in my next White Paper.

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