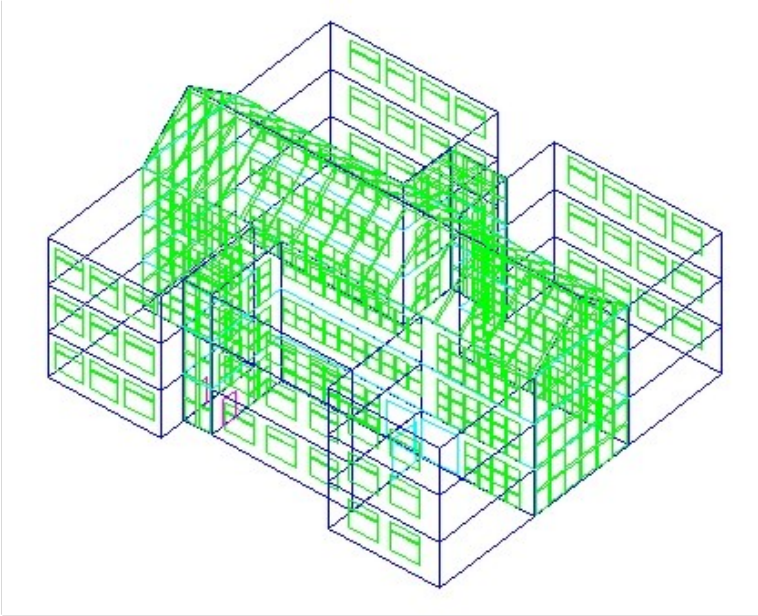
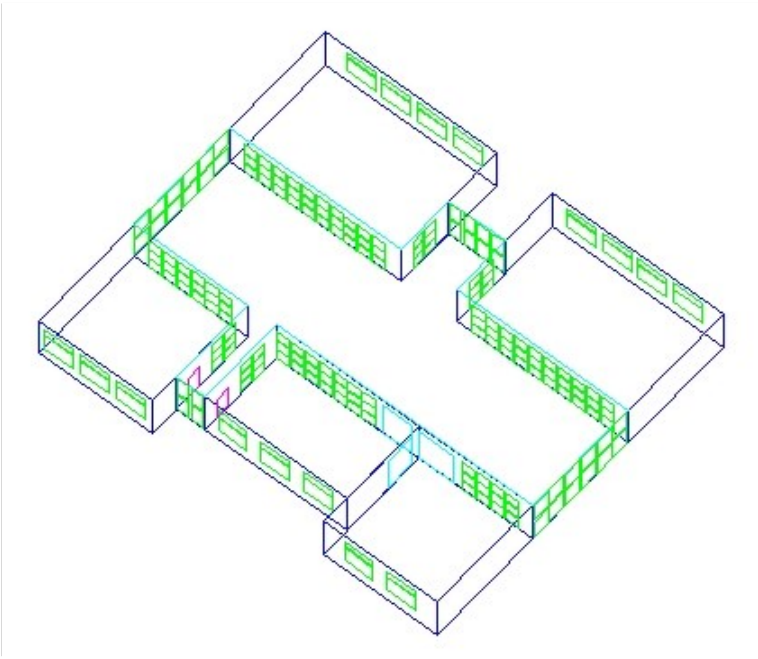
Tutorial 2: Modelling

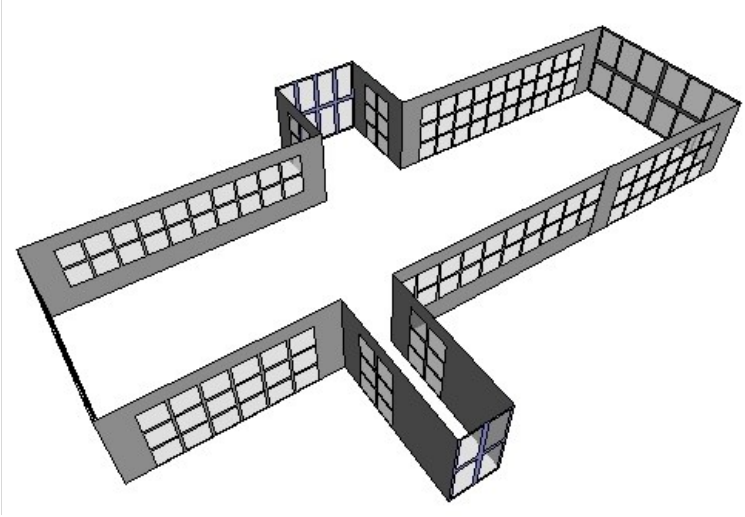
This example is a little more complex than that in Tutorial 1:



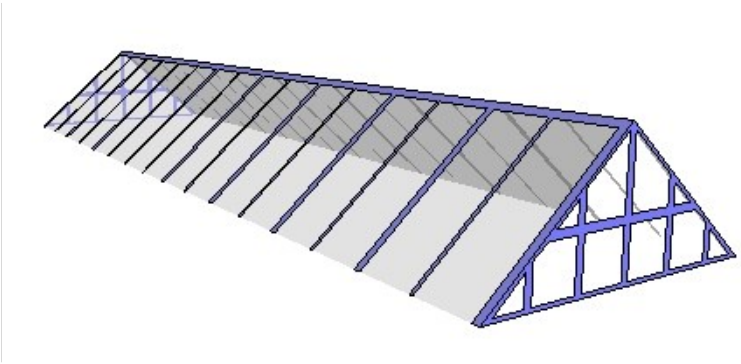
The first point to note is that the first and second floors are copies of the ground floor (except for doors and openings), and it may be worth creating the glazing before copying up to the next level.



It is also worth noting that the atrium is also split into 3 zones at the same heights as the ground, first and second floors. The connecting floors/ceilings having an opening between them, as shown for the first floor:



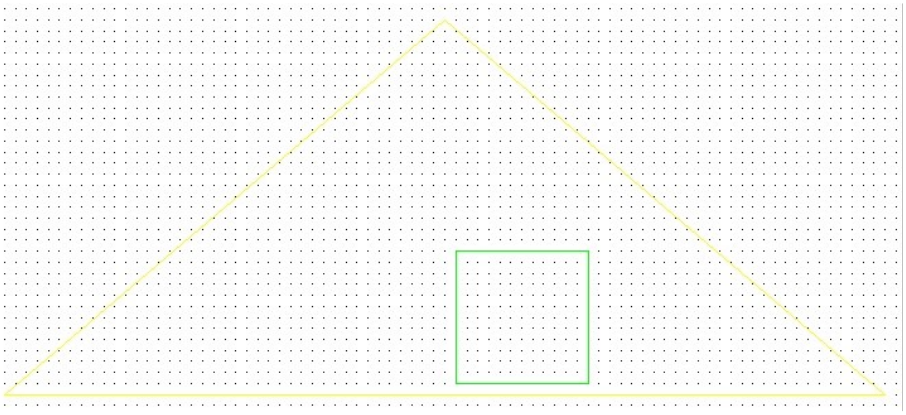
The roof is created as an extrusion along the X-axis:



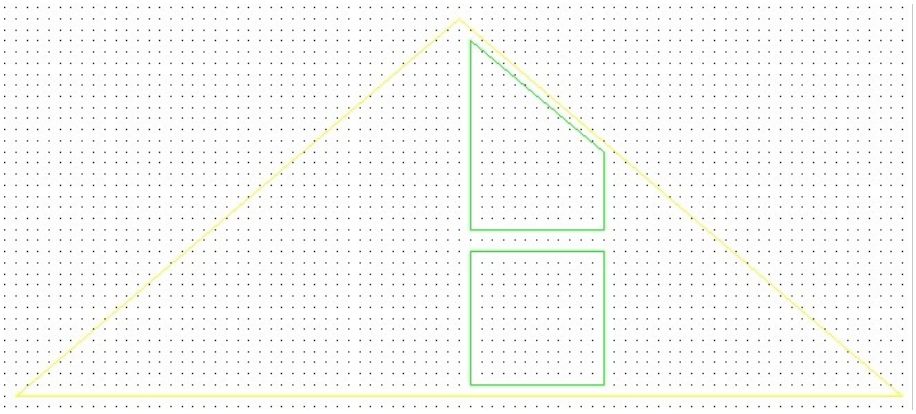
The base of this zone is an opening and the only difficult part is putting the windows in the triangular ends.

Assume there is an axis of symmetry down the centre of the surface. Decide the basic size and spacing of the windows, taking into account how these will be clipped by the shape of the surface (trying to avoid tiny slivers of window). Sometimes there is a degree of trial and error about this.

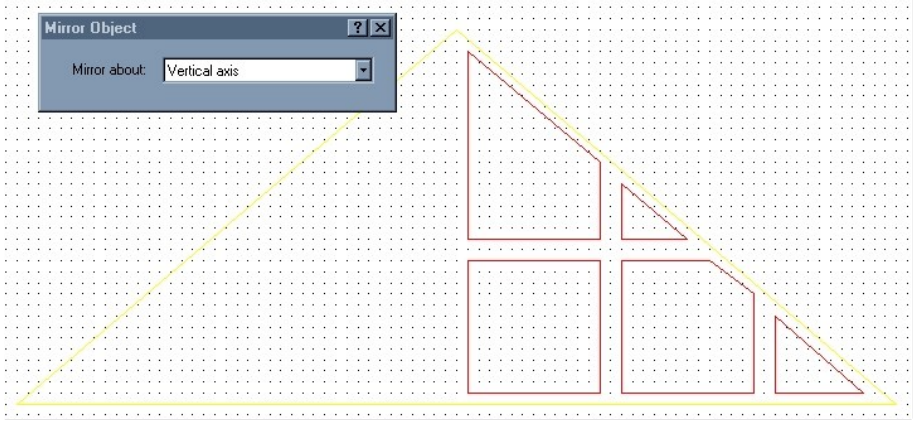
It has been assumed that the basic window is 1.2 x 1.2m with a 0.1 mullion round it. It is sometimes easier to use the key-in option to specify sizes (rather than counting from a small grid). Also make sure the grid origin is OK:

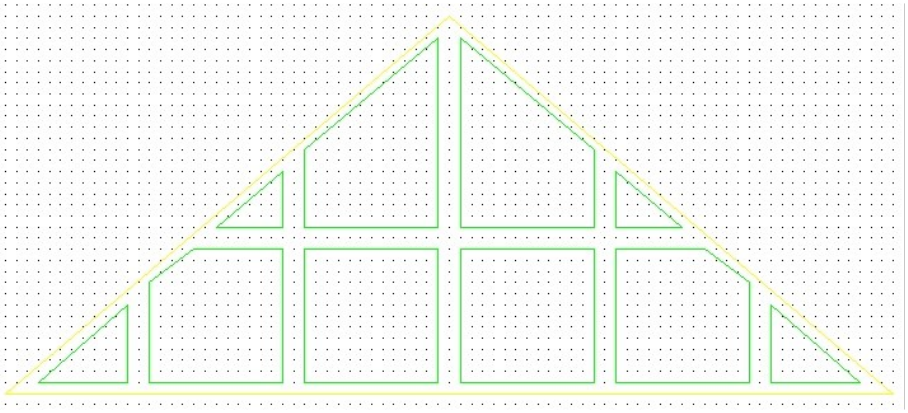


Switch the window option from “rectangular” to “polygonal” and digitise the next window using the first window as a guide:



When the first half of the surface has been completed use the “Mirror” option to copy over to the other side:





Repeat for other end of roof.