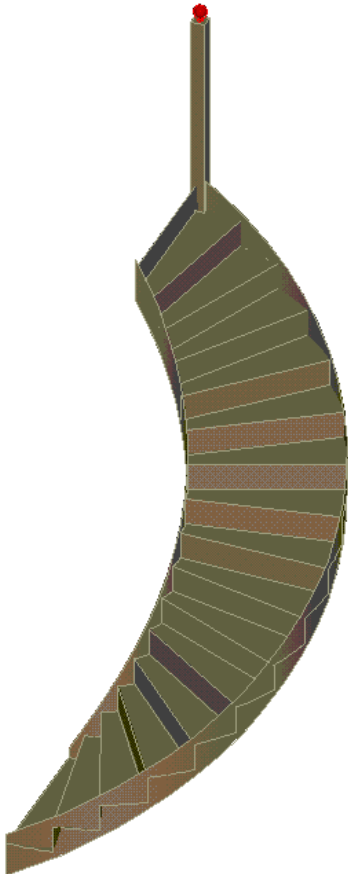


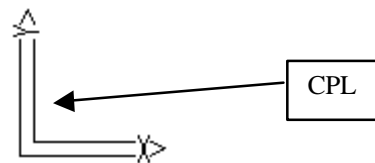
Tutorial on Creating a Curved Level Ballustrade

To use this tutorial, we will assume that you are competent in the assembly of staircases using the traditional means and are familiar with the workings of Flightmaster software.

For the purposes of this tutorial, we will start at a point where we already have a staircase built (straight or geometric) and a top newell posts has been inserted. Lets assume that you are also at this stage and your staircase may look something like this:

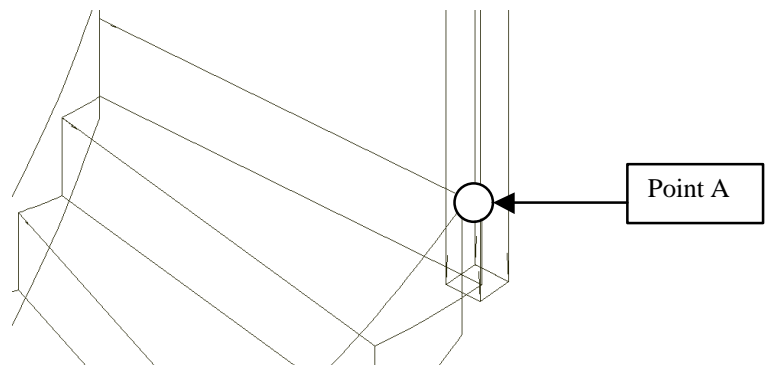


The first thing we need to do is move the “cpl” or central origin.



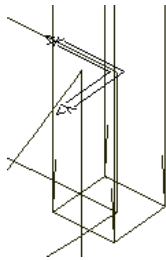
This needs to be moved to a point at the very top of the staircase at the corner where you want the Level Ballustrade to be inserted.

To do this you first need to go into a ISO view and zoom into the top of the staircase. You need to be in a position to see clearly a view like this. You may need to Spin it first.

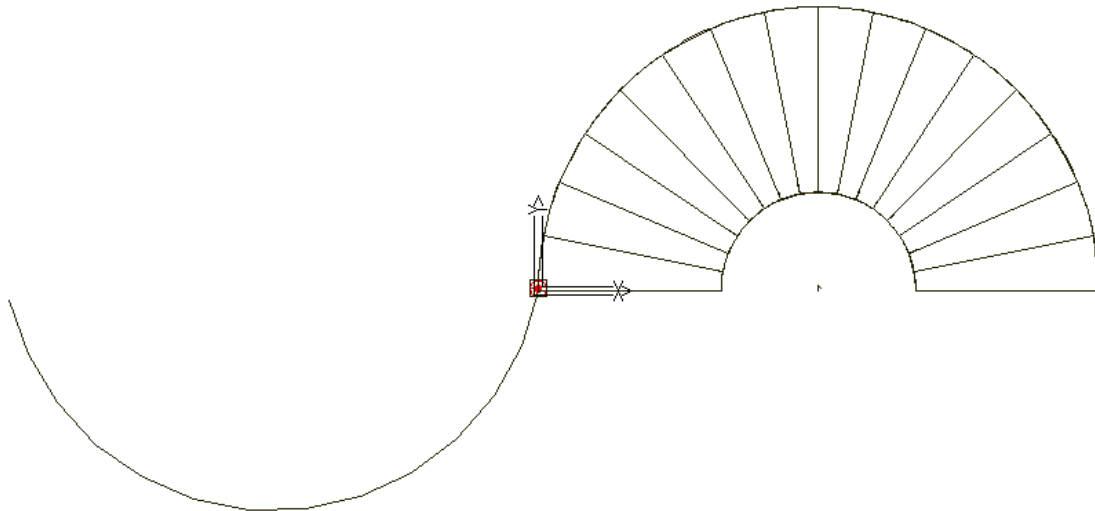


Now, go to the **CAD** menu and select **cpl**. Then select **Change** and then **Origin**. You are now being asked to insert a new location for the cpl. Move your cursor to a point at the very top of the staircase, at the corner of the riser (see Point A – above). Using the middle mouse button, snap to the this point (do not use the Left button of the mouse otherwise you will end up inserting a point in mid-space – it may look OK in this view but any other view it will show up as incorrect)

Our cpl should now have moved to this point. This should now be your X=0, Y=0, Z=0 point.



Now we are in a position to accurately attach the Arc defining the Level Ballustrade to the staircase. The best way is to first go back to a Top View. Now Select **CAD**, then **Arc**, then **Insert**. You have various options on how to Insert the arc, based on what information is at hand. In this case I will use 3 Points – where I will insert 3 known points that make up the Arc. You are asked for the first point of the Arc. The temptation is to use the mouse, but don't. Instead, type in 0 0 0 (which is the cpl position or X=0 Y=0 Z=0). Next you can insert the next position of the Arc and you will see the Arc starting to take shape. Obviously, after inserting the third point, the arc will be created. Your view may look something like this.



That's the hard work done. Now all you need to do is go to the **Level Ballustrade** command from the **Staircase** Menu, and then select **Generate**. You will firstly be asked to select the type and size of Newell Post, Stringer, Capping, Handrail and Ballusters you wish (make sure you select a height for the handrail and a separation distance for the ballusters). After clicking OK, you will then be asked to select the Line or Arc that you wish to insert the Ballustrade to. Select this Arc we just created and the level ballustrade will follow this Arc.

If you want to double check, you can select the ISO or Perspective view and Spin it around to get the required angle.

Your results should look something like this.

