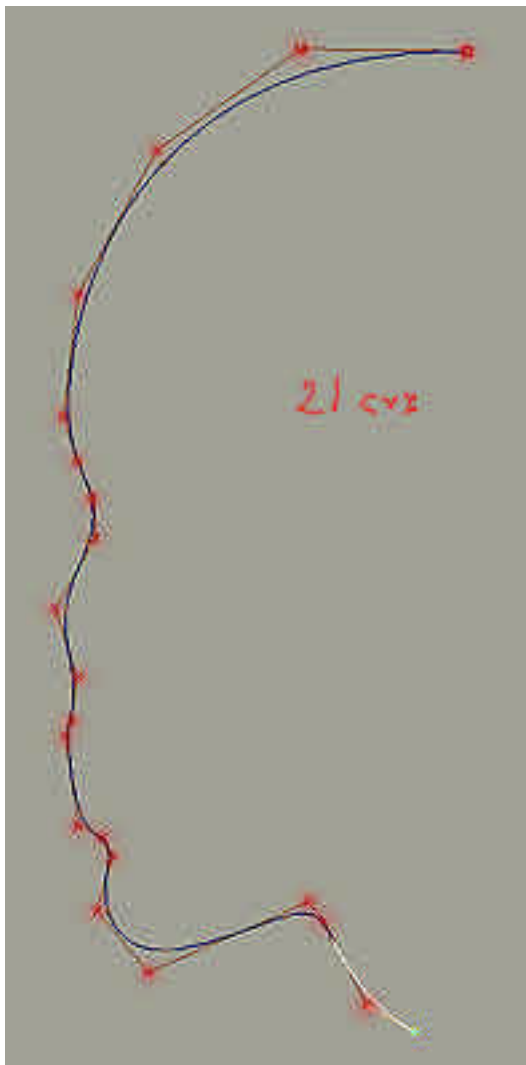


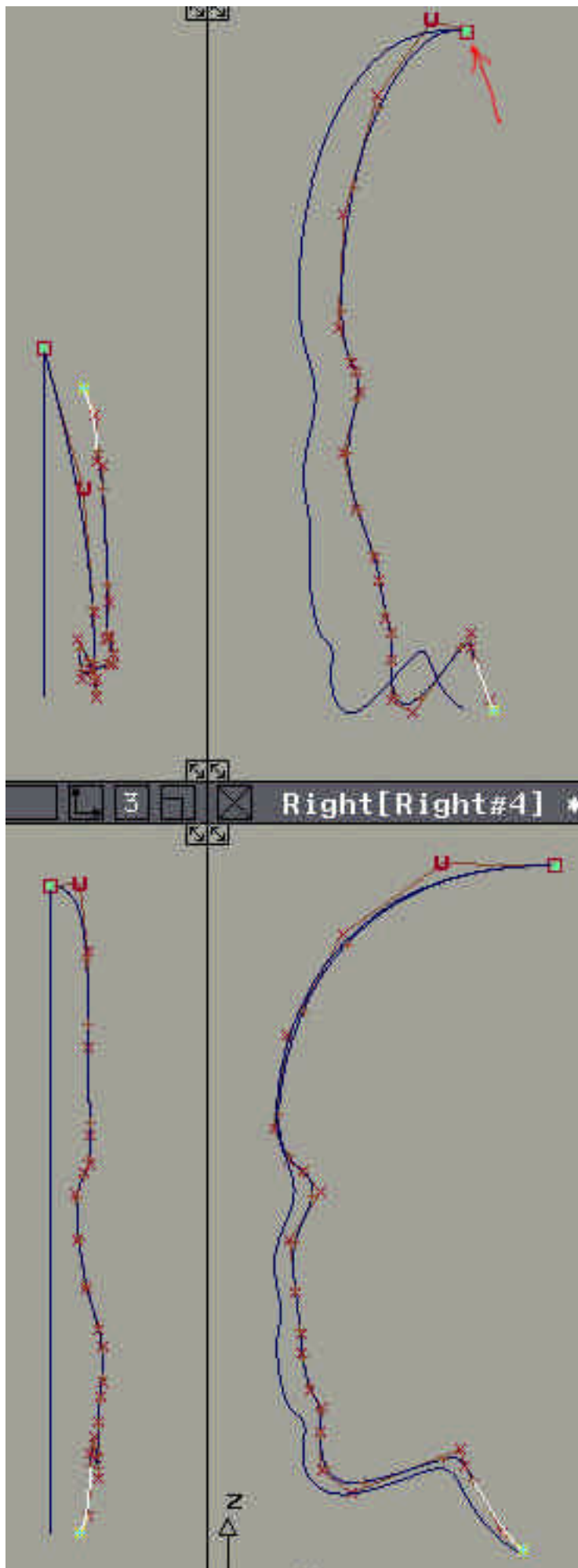
Creating the basic head shape

First we'll make an simple "dummy" surface whose only purpose is to produce Curves-On-Surfaces when we later project a set of curves onto it. Don't skip this step, even if it seems redundant: this is an important part of my modelling method. It's very hard to reach the same well-planned parameterisation by trying to "wing" it freehand, in a back/front type of head.

To start, draw a profile curve in the Right window, which will be the vertical center line, over a reference image plane (see "**About References**", and "**image planes**" on **About Computer Graphics**). A good idea is to load the images below as image planes, it'll make it easier and quicker for you to follow the steps. I have made the image plane invisible here, for clarity. Don't worry about the nose and eyes and ears and the shape of the lips, we will build them separately later. (The bend at the end of the neck is not necessary, it depends on how or if you will add the rest of the body.)

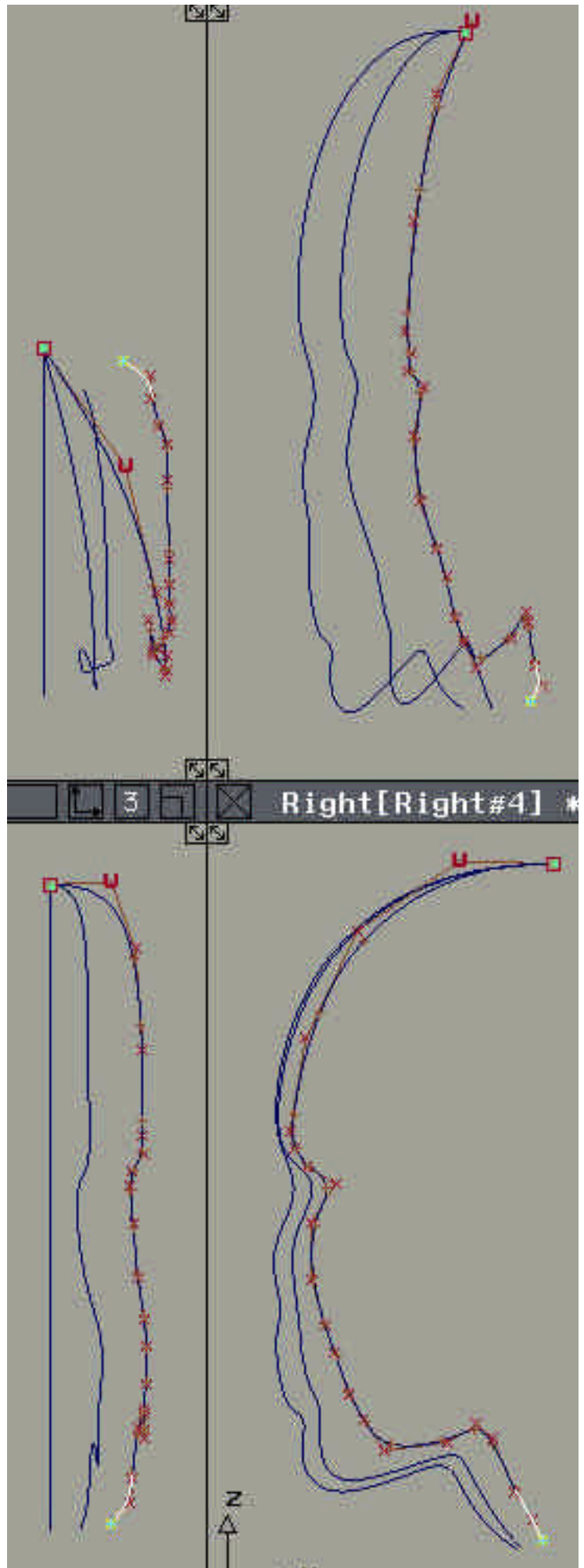


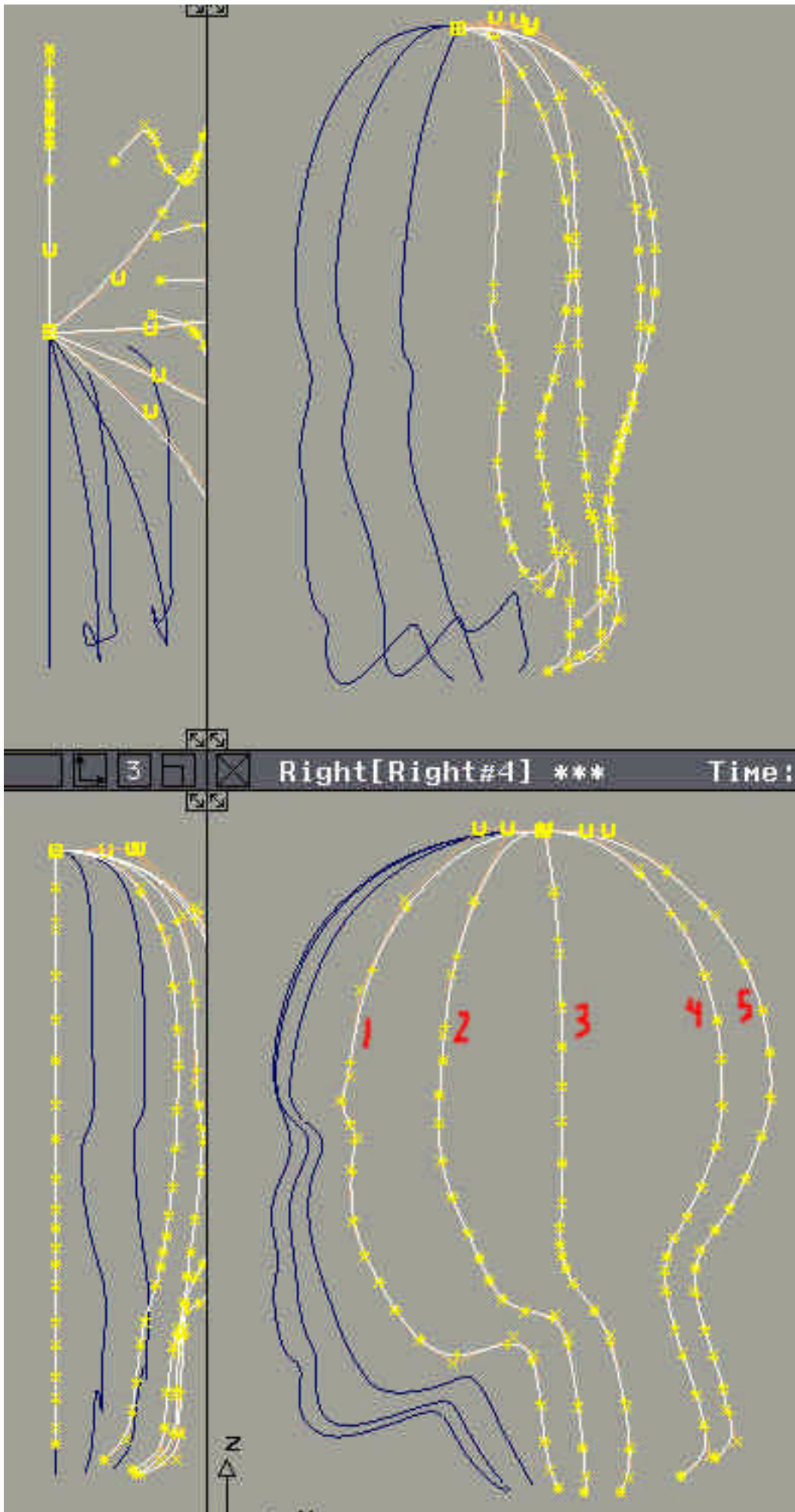
Note the carefully planned spacing of the cv's (for more information go to the section in this tutorial entitled: About Computer Graphics). Then use cv-magnet to snap the curve's pivot-point to the top cv. Copy the first line, rotate the copy a bit in the top window (around the Z axis in a Z-up coordinate system), following this example, and move the cv's into slightly different positions, roughly following the screenshots below. Copy curve 2, rotate and reshape it in a similar fashion. I know, at first glance it looks like I just translated the the first four lines a bit to the right, then snapped their top cv's to the first one - but each curve WAS rotated first, then some cv's were translated



This multi-view screenshot shows the general modelling procedure described on the previous page. Here you can see that the original profile curve has been first copied and then rotated slightly off centre. Once this has been done the curve is reshaped by translating some of the cv's. Notice that beginning near the region of the browbone the cv's of the new (rotated) curve have been moved inward toward the centre of the head.

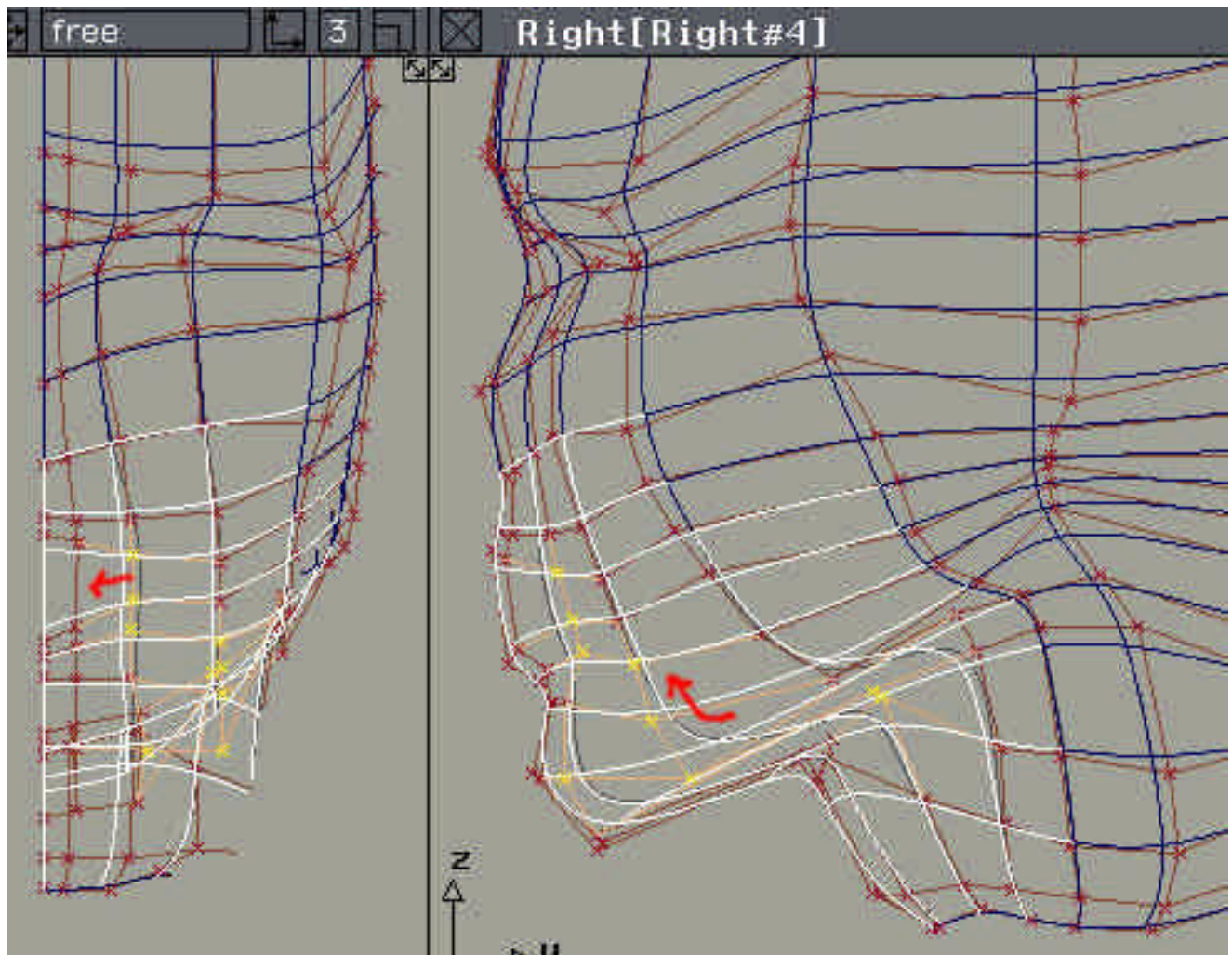
Once again, a similar modelling procedure applies. Here you can see that the 2nd curve has now been copied and then rotated slightly off centre to produce a 3rd curve. Once this has been done the curve is reshaped by translating some of the cv's. Notice that beginning near the region of the browbone and eye socket the cv's of the new (rotated) curve have been moved inward toward the centre of the head. Observe how not only is the curve moved inward but also becomes more rounded and less detailed especially in the mouth and chin area of the face.





This screenshot shows all the remaining curves that will be required as you make your way toward the rear profile of the head. To create these curves just repeat this procedure for each on a curve by curve basis. Then use "skin" (loft) with settings "open", "chord" "3" and rebuild, history should be off. You should now have a model that resembles the shaded screenshot below:





This screenshot shows the next step. You should edit the jawline and side of the mouth by moving the highlighted cv's in the direction of the red arrows, until it looks like the shaded screenshot below. You should mirror-copy (Scale -1 1 1 with the pivot point at 0 0 0) that side of the face as an "instance", to temporarily get a full face with a left side that automatically follows any changes you do on the right side, for easier editing and visualizing.

