

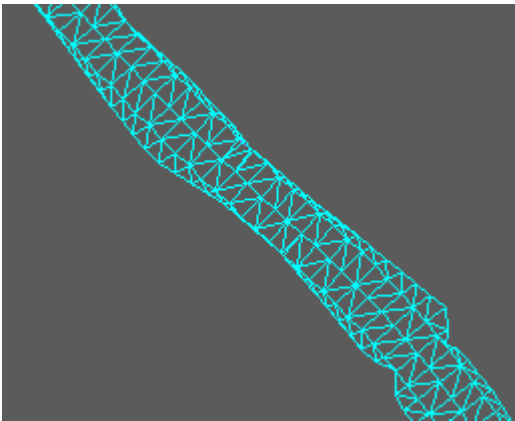
Design model and volumes

Make a design model and calculate the volume

In a general sense it is important to consider what are the suitable entities to define the design model as the wire frame design will be a number of 3D Polylines output by a range of functions from the *Design* and *Ground Modelling* menu items.

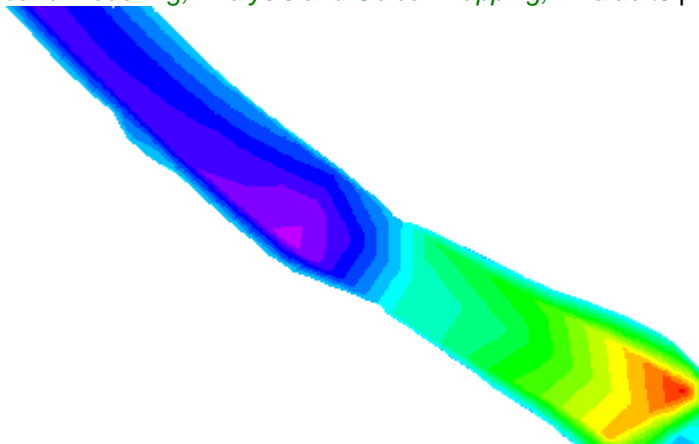
a. *Ground Modelling, Create Model* Select the design 3D Polylines (centre, channels etc.) and the embankment interface 3D Polylines (tops and bottoms of embankments). Take care not to include any original 3D survey data in the selection set and also do not include the embankment offset 3D Polylines. Having made the model draw the triangles and in most cases it will be necessary to define the active and passive triangles to ensure an accurate volume calculation.

***Tip** Use *Layers and Erase, Erase by selected entity layer* to delete all embankment offsets.



Design model triangles

b. *Ground Modelling, Volumes* to compare existing and design models and produce the volumes calculation. Also make a difference model if isopachyte colour mapping is required to illustrate areas of differing amounts of cut and fill. If a difference model has been created assign its active and passive triangles before using menu item *Ground Modelling, Analysis and Colour mapping, Z value* to produce the colour mapping.



Cut and fill colour mapping