17-09-2020 – Res3DInv topography webinar Q&A

If you have "Electrodes outside of grid", which include elevation of electrodes, and also if you provide topography at the end of the data file, which one is used as elevation in inversion?

The point electrodes overrule the list at the end of the file (contrary to what I said in the webinar!)

What do you mean with Trapezoidal Grid?

What do you mean with Point Electrodes?

They are different versions of the Res3Dinv dat format. Trapezoidal grid is a distorted regular grid described in section 7.1.3 in the Res3DInv manual.
Point electrodes is an option to add electrodes that are not on the inversion grid. It is described in section 7.1.4, i will talk a bit more about in the end.

I make 3D maps by combining the parallel 2D profiles, should I add the topography to all of 2D profiles and then collate them?
It is up to you, adding the topography to the 2D files and then doing the collation or adding it directly to the 3D file should give the same results. So I would do what I find easiest in each situation.

If I have multiple 2D profiles with topo, what is the best way to present them in 3D block?
It depends on how close the profiles are together. If the profiles are no more that approximately 2 times the electrode spacing from each other you can combine them into a 3D file (see section 8.7 of the Res2DInv manual for details), and then perform the inversion in 3D.
If they are further from each other it is also possible to perform the inversions as 2D inversions and then interpolate the 2D results, this can e.g. be done in Aarhus Workbench Essentials, you can read more here: http://www.ags-cloud.dk/Wiki/W_GeotomoGuides or contact sales@aarhusgeosoftware.dk for further details.

How can we take co-ordinates of all points if we have small spacing between the electrodes like in case of 5 m spacing.

For some areas a DEM (digital elevation model) is accessible, then the elevation can be looked up using the electrode coordinates, in other cases they are measured in the field using a differential GPS or a base station and classical survey methods.
But note that you do not need to know the topography for all electrodes, if you use the topography in unstructured list option you can just add topography for as many points as you like, then the topography will be interpolated from these points (make sure to select points that are sufficient to give a close approximation to the real topography of the area).

Is there a limit for #pts?
For the unstructured list there is a maximum of approx. 24000 points

export result to google earth?
There is no direct export for google earth at the moment, no.