

Geo-Tools > More Geometry Tools > Filter

SP Net info 14

Uploaded: 26.10.1999

Latest revision: 30.03.2020

Filtering out unnecessary data is a never-ending challenge in noise mapping projects. In some small projects it might not be a big problem to keep all available data in the model. But in general, you should weed out data that are not needed to obtain the required accuracy. In the first place a 'slim' model is faster to operate for you, faster screen refresh, shorter loading times. Secondly it shortens calculation time.

The filter under Geo-Tools > More Geometry Tools is mostly used to filter elevation lines, but it can be used to remove unneeded 'outliers' of any object, e. g. intermediate points on straight line objects or balconies/pillars on facades etc, see Fig 1. This can be useful if you intend to do facade noise maps with one receiver point per facade segment.

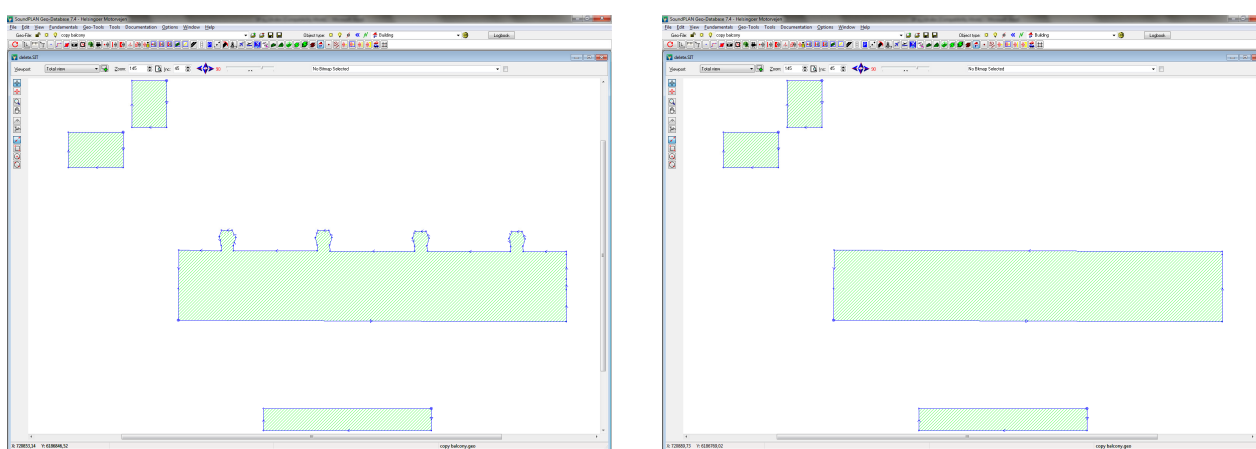


Fig 1 Filtering facades

The object type you want to filter should be selected. Execute the filter function and key in a relevant filter value. The filter value is the bandwidth in metres. Intermediate points within the range $\pm$ filter value will be selected, but so far they remain in the model. That gives you a chance to evaluate the result of the filtering before you actually get rid of the points (with the Delete button). Fig 2 illustrates how the filtering process proceeds. Please be aware that the filtering moves the line (compare solid and dotted line upper right), which might cause elevation lines to cross after the filtering!! Take care not to filter too coarse.

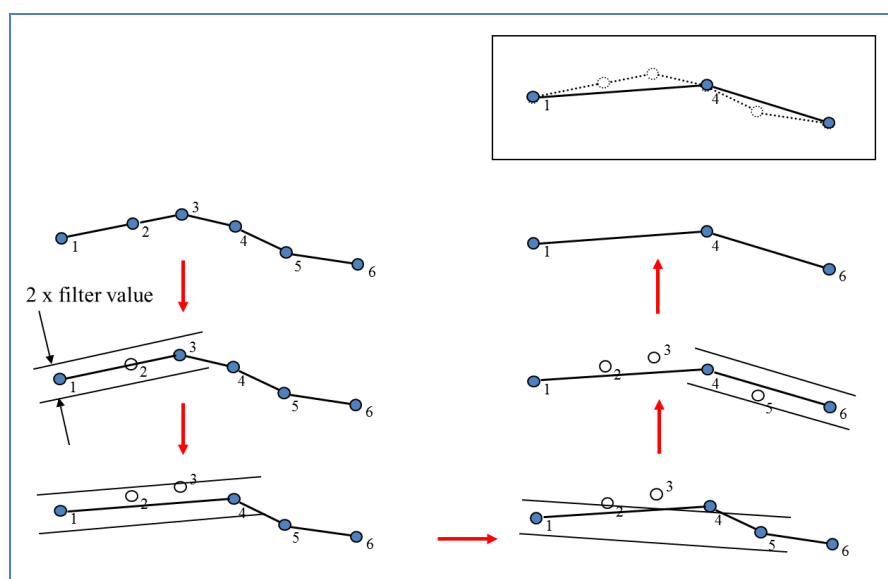


Fig 2 The filtering process

Deleted points will be gone forever. Therefore, use a small filter value first and look at the result before you proceed with higher values = a coarser filter. How far you should go depends on the project. Use your outstanding experience.

In older versions of SoundPLAN the filter function under GeoTools was two-dimensional. Now also the z-coordinate is taken into account.