

InRoads

Roadway Modeler Densify Curves

Did you know that sometimes triangulating a surface after running Roadway Modeler can result in a cryptic InRoads error message "Point not on Surface", at which point the triangulation process is halted. If you get this error message go ahead and start Roadway Modeler again, set your surfaces and stationing (if necessary), click on the "Advanced" tab and make sure the "Densify Curves Using Chord Height Tolerance" control is checked. Then try to run your design surfaces again through the Modeler. Most likely you will successfully generate a good triangulation, although you may generate a "Point tolerance..." warning message. You can click OK. During triangulation it may still be possible to generate the "Point not on surface" error even after you have set your "Chord Height Tolerance" to a different value (as discussed below). If this is the case you will need to try other chord height values, however, according to the Bentley Help system you should choose *increasing* chord height values until you can successfully triangulate your surface.

One caveat to this solution is; The resulting DTM will, in most cases, be significantly larger and take *longer* to triangulate due to the fact you have added interpolated data points on each of your design strings. You can control the size of the DTM somewhat by setting the global "Chord Height" tolerance to a value greater than the standard default value. To set this value, in InRoads click on the "Tools" pull-down menu, click on "Options" to invoke the Options dialog box, click on the "Tolerances" tab and enter your "Chord Height" tolerance value.

As a general rule of thumb a chord height tolerance of 0.05 will produce a triangulation of approximately twice the size of a triangulation using the default 0.01 chord height tolerance. Actual the DTM size will vary depending on the distribution of your original data points.

From JR Heathcote Region 3