

O-Calc Pro Technical Note

This O-Calc Pro Technical Note address remediation of two defects that were introduced with the release of O-Calc Pro Version 5.03 up to and including Build 5.0.3.18012, built on 2018-03-08 02:20 PM. It is recommended that the release O-Calc Pro Version 5.03 (5.0.3.18012), built on 2018-05-18 12:19 PM be download from the O-Calc Pro installation site to correct these defects.

O-Calc Pro Installation site: (<https://www.o-calcpro.com/PPL/NewVersionAvailable.html>)

Error in the Sag/Tension Calculation

With the release of O-Calc Pro Version 5.03, the modeling of the O-Calc Pro tension and sag functionality was enhanced to better model how the wind interacts with the span geometry at oblique angles. The goal of this enhancement was to better model how the span's blowout reacts to the wind at relative angles other than 0 and 90 degrees. Unfortunately, a calculation defect was introduced that overcompensated for this effect when tensions in spans were being modeled in either 'Sag to Tension' mode or 'Tension to Sag' mode. This over compensation was most dramatic as the span angles deviated more from tangent angles. Note: this defect was not introduced if modeling tensions and sags in O-Calc Pro using Static, Slack, or Table mode.

More information on how O-Calc Pro can model tensions and sags on conductors and cables using several different methods can be found on the O-Calc Pro WIKI page. See: <http://o-calcpro.com/wiki/2017/05/16/tension-types-and-sag-explained/>).

Error in Display Attachment Heights for Segmented Poles

O-Calc Pro can model manufactured, non-wood, segmented poles. This are typically steel or fiberglass poles that are manufactured in segments and then stacked in the field during installation. O-Calc Pro models these segmented poles as separate segments so that the amount of overlap can be adjusted to either the manufactures specifications and/or how the pole was constructed in the field. With earlier build of O-Calc Pro Version 5.03, both the O-Calc Pro 3D View and the Schematic View displayed incorrect attachment heights when modeling these segmented poles. These displays were failing to properly account for the setting depth of the bottom most segment. It should be emphasized that defect did not affect the calculations, only how the model was being displayed.