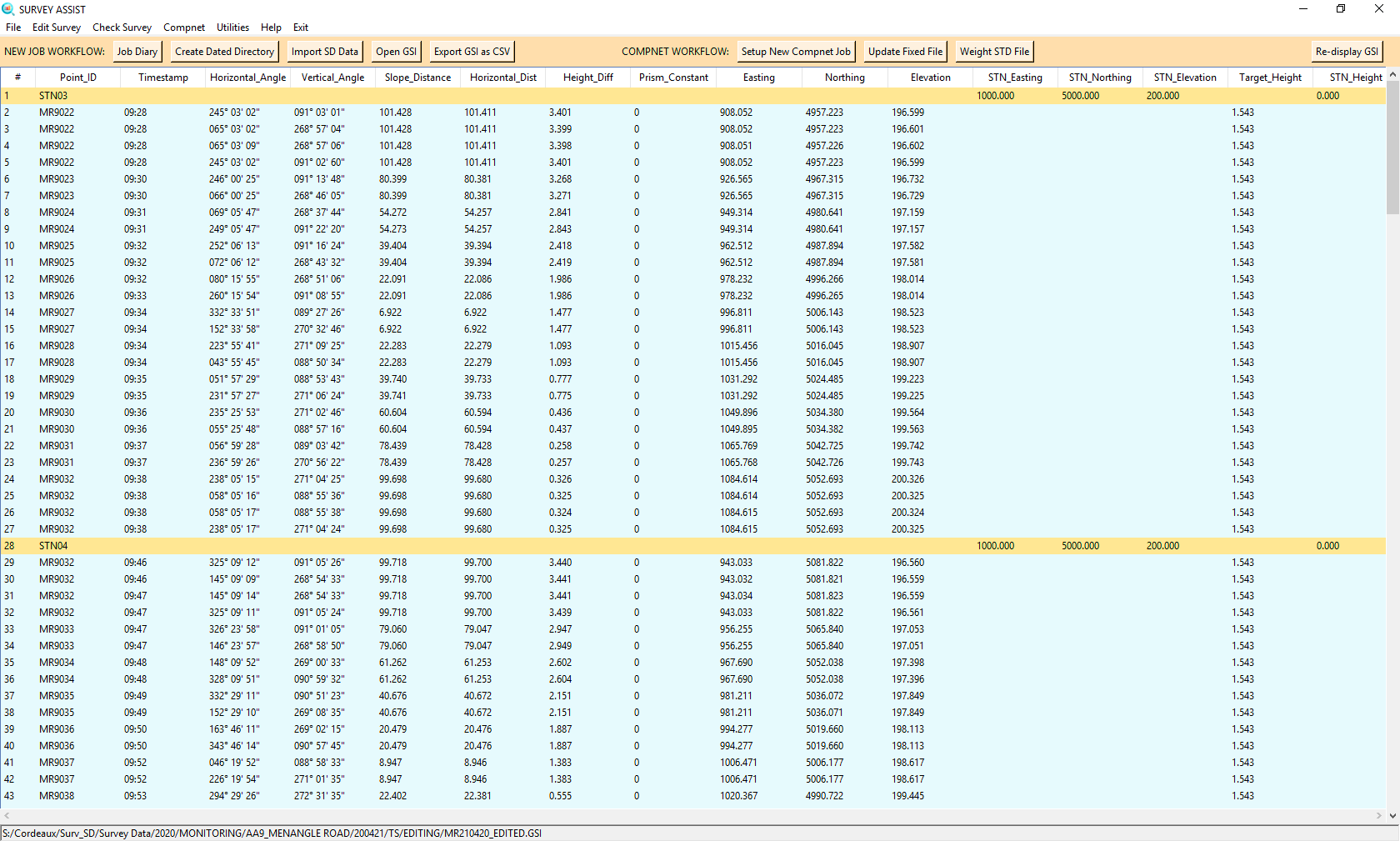
# Survey Assist Guide



### What is Survey Assist and why use it?

Survey Assist is a python application that makes it easier to perform calculations on survey data gathered in the field. The benefits are:

1. **Faster** to perform survey calculations and related functions
2. **Reduction** **of calculation errors** through automation of some tasks
3. **Easier to debug** problems when they arise through and easy to read and edit user interface
4. The ability to **check for survey errors** prior to processing in CompNet

### How do I install Survey Assist?

Survey Assist is already installed on the shared network drive (\\Colsyd-fil01\depts\Cordeaux\Surv\_SD\Functions\Survey Functions\Custom Applications\Python\Survey-Assist-master). You just need to create a desktop short cut of the main.py and rename the shortcut to whatever you want (e.g. Survey Assist). You also need to install Python 3 onto your computer if it is not already installed.

### How do I use Survey Assist?

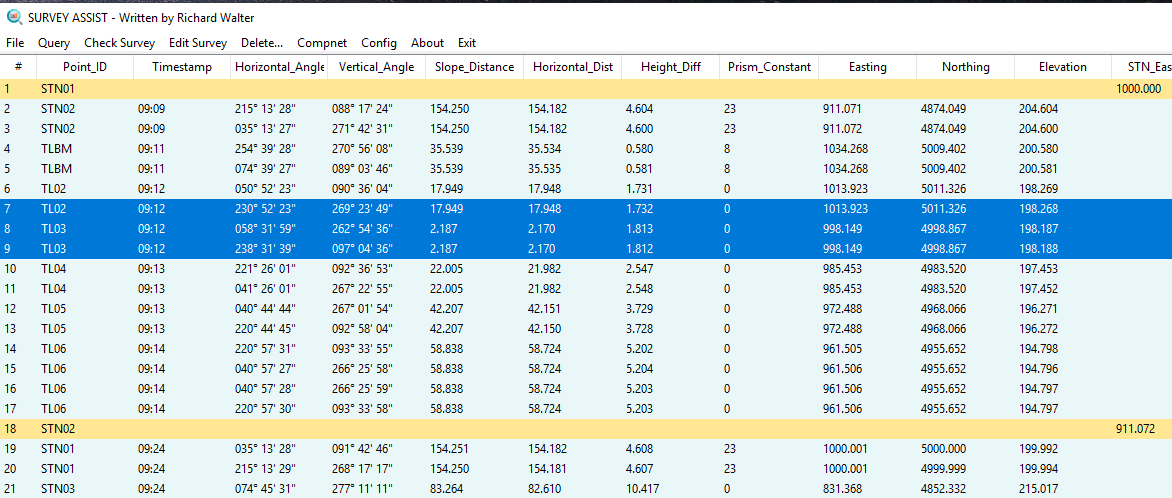
Survey Assist has a number of functions that can help you with survey field calculations. These will be discussed individually below.





CHECK AND CLEAN UP GSI FILE

First, open a GSI file File->Open. This will display the GSI in a format that is easier to read, interpret and check visually for any errors.



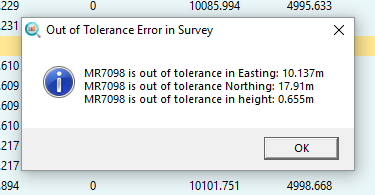
To clean up your GSI file you can:

1. Delete any line/lines by highlighting and hitting the ‘delete’ key.
2. ‘delete all 2D orientation shots’ from the ‘Delete…’ menu
3. Change target height of a highlighted line/lines from the Edit Survey menu

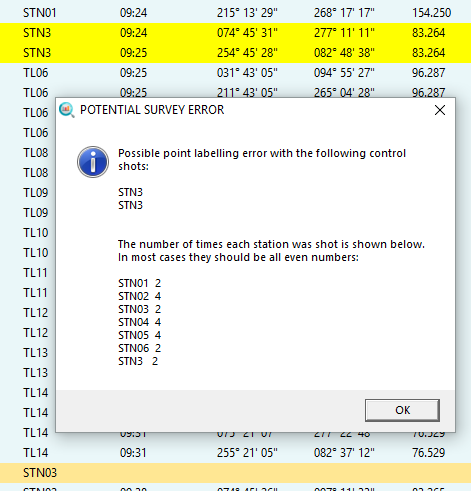
CHECK SURVEY FOR ERRORS

Survey Assist can check your survey for a number of possible issues:

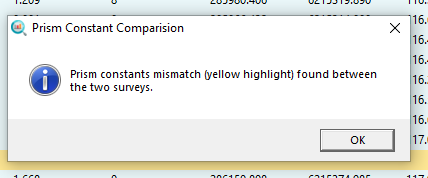
1. Check control and change points for a 3D survey are all within a specified tolerance (see ‘Config’ menu). Go to ‘Check Survey’ -> Check Tolerances. Any control/change points outside of this tolerance are flagged. In the case below, an issue with change point MR7098 is flagged. In this case, MR7097 was accidently shot.

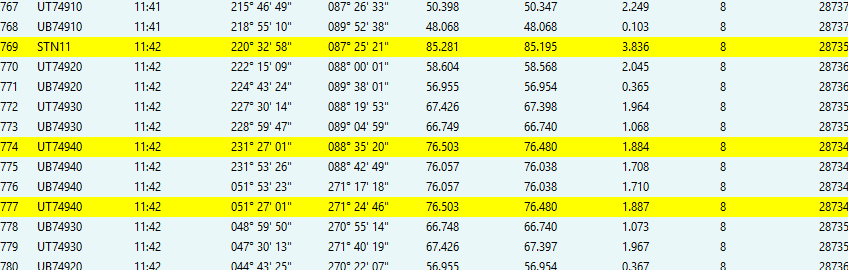


1. Check for control naming issues. Go to ‘Check Survey’ -> Check control naming. Any control points with a labelling mismatch are flagged. In the case below, the surveyor has shot to STN3 and then subsequently setup up on STN03

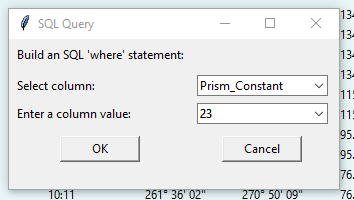


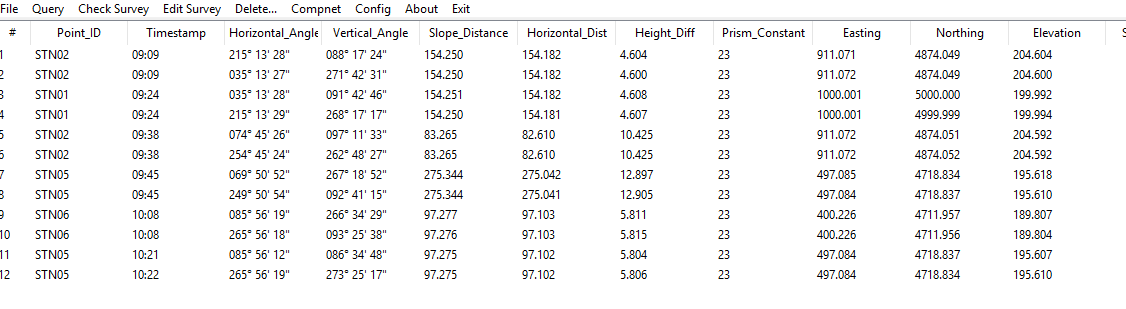
1. Compare prism constants from a previous similar survey. Any points that have a different prism constant are flagged and highlighted to the user for further checking. In the example below, the shots to STN11, UT7940 have a different prism constant when compared to a previous, similar survey.





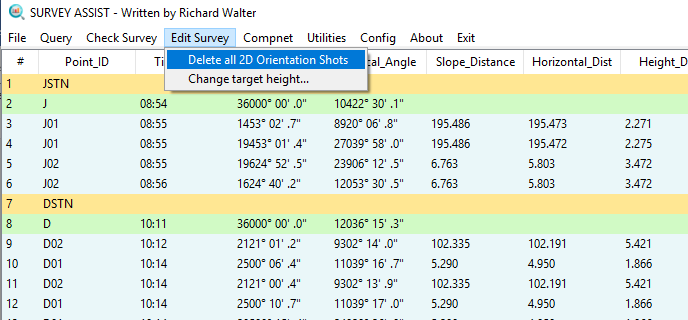
1. A query on all the survey data can also be performed. This can be useful for tracking down survey errors. For example, from the ‘Query’ all shots to the same prism constant can be shown to the user for further analysis





EDITING SURVEYS

Survey Assist allows you to delete all 2D setup orientation shots with a click of a button. Alternatively, you can highlight each setup line and delete individually.



HELPING WITH COMPNET

Survey Assist provides a number of useful functions to assist when performing CompNet adjustments:

OTHER UTILITIES

Export csv from asc and open ready to copy and paste into calc sheet