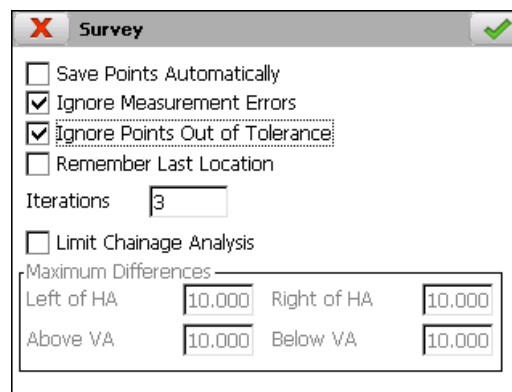




## TcpTunnel Version 5 News Summary

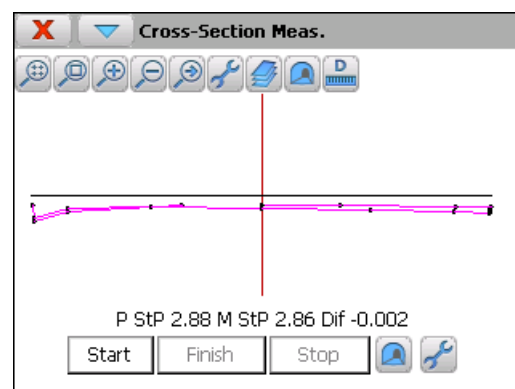
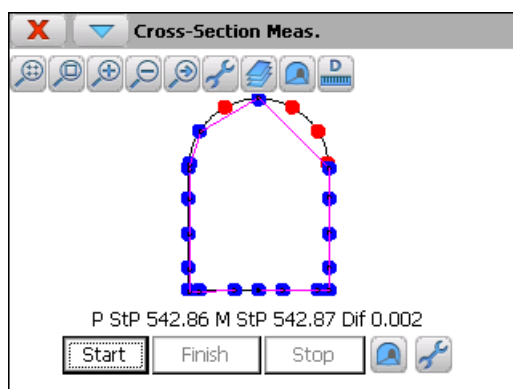
### *Surveying and setting out unattended*

Direct access to setting parameters within setting out and surveying screens. Allows one to disable the warnings during surveying due to values out of tolerances and errors when total station measures or rotates, allowing to work in unattended way.



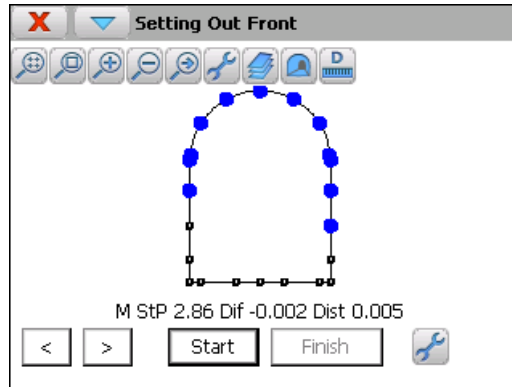
### *Setting out and surveying cross-sections*

Setting out and surveying cross-sections in graphic mode, in both plan and front views. Intuitively appreciate the points that have been measured correctly, those which have not been measured and the remaining ones.



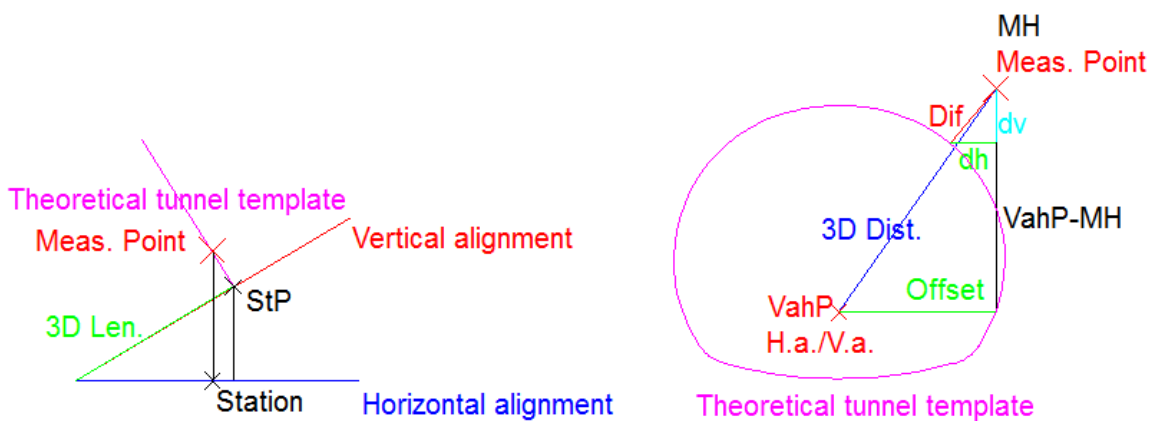
### *Setting out the front*

The same as setting out cross-sections, the front can be set out in graphic mode, showing clearly the measured points and the ones which have not been measured.



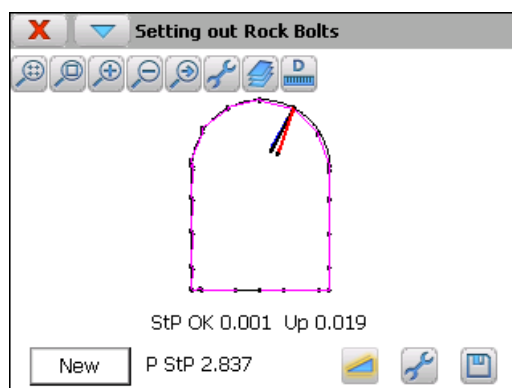
## New help systems

Help in graphic mode for setting out, checking and surveying, showing clearly the meaning of each parameter.



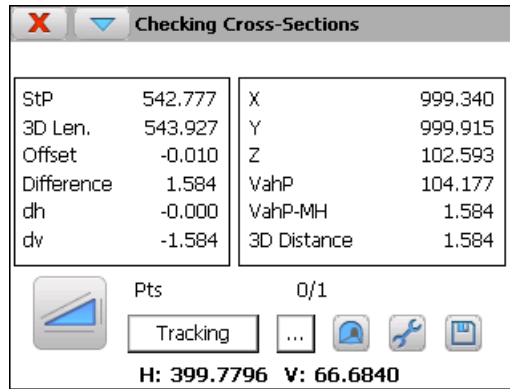
## Setting out rock bolts

New option for setting out rock bolts in graphic mode, assisting the user in placing them with instructions to place it perpendicular to the measured station (forward-backward) and its angle (up-down).



### 3D Length

Shows the 3D length of the station calculated within the options points analysis and checking cross-sections. This is especially useful in projects with high slopes, where the difference between station and 3D length is significant.



### Other improvements

Log files store local time.

Possibility of entering the compensator accuracy of the total station, which is used for calculating the uncertainties of the angle and distance measurements within the resection option.

