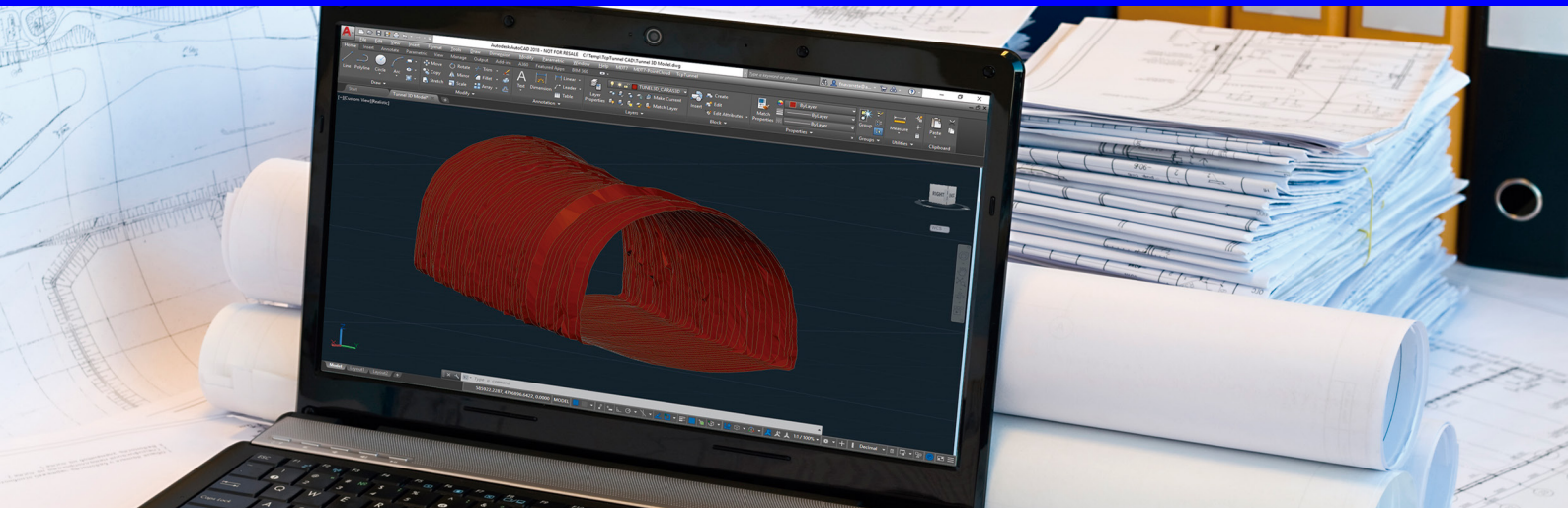


# tcpTunnel CAD

## Analysis of Tunnel Data Measured by Total Station

This CAD application processes tunnel surveying data measured by total stations running TcpTunnel or other programs.



### Project definition

Every project is compound of an horizontal and vertical alignment, tunnel templates and point files, supporting different file formats such as LandXML, Trimble TXL, etc

### Templates

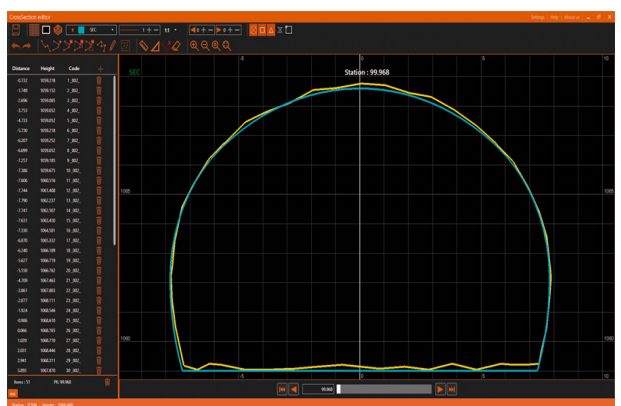
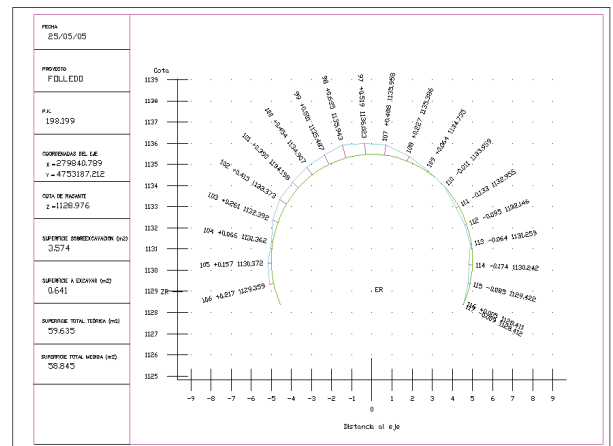
Templates can be defined by parameters or selecting a polyline in CAD. It is possible to apply different templates to intervals of alignment and interpolate their dimensions.

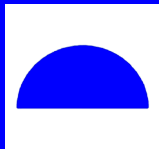
### Cross-section drawing

The measured cross-sections can be computed from points, and it is possible to draw them in individual mode or by sheets. There are options to label differences between project and measured cross-sections as well as station, heights, areas, etc. It is possible to create a 3D view of measured cross-sections as a wireline drawing.

### Cross-section editing

The powerful cross-sections editor has tools for erasing, adding or moving points before drawing.



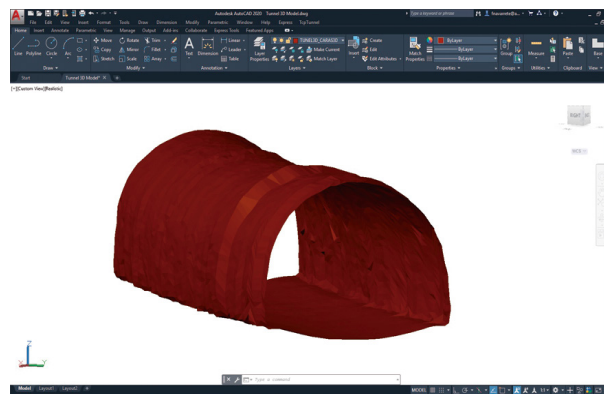


## Volume Calculation

The program computes underbreak and overbreak areas and volumes by comparing project and as-built cross-sections or profiles measured on different dates. Reports can be printed and exported to Excel and other file formats.

## 3D Model Generation

tcpTunnel CAD creates a 3D model of the tunnel that can be rendered in realistic mode and exported to several file formats. Another command helps you to walk through the alignment and create an animation.



## Requirements <sup>(1)</sup>

Operating System	Windows 7, 8, 8.1, 10, 11 in 32 and 64 bits
CAD	AutoCAD®/Civil3D® versions 2019 to 2026 BricsCAD® versions 2022 to 2026 ZWCAD® versions 2021 to 2026
Hard Disk	1Gb of free disk space
Memory	Minimum 3Gb
GPU	Compatible with OpenGL 3.0 or better
Processor	Dual-core 2Ghz or better

(1) This information is for guidance only. More detailed information about TcpTunnel CAD requirements on [www.aplitop.com](http://www.aplitop.com)

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