

TCP-Digital Terrain Model V5.3

Module Features Comparison



POINTS	Standard	Professional	Surveying
Import and export from/to different file formats	■	■	
Conversion from drawing entities	■	■	
Point editing	■	■	
Automatic drawing from point codes	■	■	

SURFACES	Standard	Professional	Surveying
Import and export from/to different file formats	■	■	
Breakline drawing and editing	■	■	
Breakline error detection	■	■	
Creation of surfaces from points	■	■	
Creation of surfaces from 3D polylines	■	■	
Interactive surface editing	■	■	
Drawing as 3D faces, solids, polylines or meshes	■	■	
Creation of explanades from terrain or explanade height		■	
Earthworks by cut or fill head or foot		■	
Final ground calculation		■	
Optimum explanade height calculation		■	

MESHES	Standard	Professional	Surveying
Calculation from surfaces	■	■	
Calculation from contours	■	■	
Drawing of meshes	■	■	
Mesh operations	■	■	

CONTOURS	Standard	Professional	Surveying
Contour generation	■	■	
Contour editing	■	■	
Contour labelling automatic, manual or by direction lines	■	■	
Labelling of special contours	■	■	
Elevation of polylines to contours	■	■	
Contour smoothing	■	■	
Contour generalization		■	
Contour filtering		■	
Contour interpolation		■	
Contour splitting and joining	■	■	
Special height contours	■	■	
Contour separation	■	■	
Splines conversion	■	■	
Height errors derection	■	■	

HORIZONTAL ALIGNMENTS	Standard	Professional	Surveying
Drawing of lines and arcs	■	■	
Drawing of clothoids		■	
Lines and arc constructions	■	■	
Clothoids constructions		■	
Drawing of alignments		■	
Alignment editing		■	
Alignment library		■	
Conversion of polyline to alignment	■	■	
Alignment utilities	■	■	
Checking of road regulations	■	■	
Import and export from/to different file formats	■	■	
Alignment dimensioning	■	■	
Generation and editing of superelevations		■	
Generation and editing of additional widths		■	
Distances from alignments	■	■	
Intersections among alignments	■	■	
Drawing of 3D polylines	■	■	
Visibility report	■	■	

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CROSS SECTIONS	Standard	Professional	Surveying
Quick cross section	■	■	
Cross section calculation from surface or mesh	■	■	
Cross section calculation from 3D polylines	■	■	
Cross sections calculation by regression	■	■	
Cross section editing	■	■	
Conversion of cross sections from drawing	■	■	
Drawing of terrain cross sections	■	■	
Drawing of composite cross sections		■	
Numerical data definition	■	■	
Heights report by interval	■	■	
Drawing of cross sections in plan view	■	■	
Cross sections drawing by steps	■	■	
Final ground cross section generation		■	
Cross section utilities	■	■	
Import and export from/to different file formats	■	■	

VERTICAL ALIGNMENTS	Standard	Professional	Surveying
Graphical and numerical definition		■	
Conversion from polyline		■	
Vertical alignment editing		■	
Points on profile analysis		■	
Checking of road regulations		■	
Import and export from/to different file formats		■	

TEMPLATES	Standard	Professional	Surveying
Definition of templates		■	
Definition of ditches		■	
Definition of slopes		■	
Definition of roadbeds		■	
Assignment of templates to stations		■	
Conversion of templates from drawing		■	
Plan view		■	
Reinforcements		■	

STAKEOUT	Standard	Professional	Surveying
Drawing and editing of stakeout stations	■	■	
Points stakeout		■	
Stakeout respect an alignment		■	
Points calculation and analysis		■	
Layers stakeout		■	
Lines stakeout		■	
Simple template stakeout		■	
Point analysis on alignment and terrain		■	

VOLUMES	Standard	Professional	Surveying
Volumes by meshes difference	■	■	
Volume by cross-sections difference	■	■	
Volume report		■	
Quick volume calculation		■	
Area and volume reports		■	
Cross-sections measurements report		■	
Roadbed layers measurements report		■	
Volume by simple template		■	
Mass diagram		■	

MAPS/REALISM	Standard	Professional	Surveying
Route by terrain	■	■	
Route by road		■	
Height map	■	■	
Slope map	■	■	
Visibility map	■	■	

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Module Features Comparison



Insertion of georeferenced images	■	■	
Materials management	■	■	
Insertion of 3D objects	■	■	
Insertion of images from WMS services	■	■	
Import and export from/to Google Earth	■	■	

UTILITIES	Standard	Professional	Surveying
Plots division utilities	■	■	
Sheet drawings	■	■	
Entities elevation	■	■	
Drawing of crosses, ticks and coordinates	■	■	
Import and export of LandXML files	■	■	

SURVEYING	Standard	Professional	Surveying2
Conversion of total station measurement files			■
Points and stations calculations			■
Direct and inverse intersections			■
Trigonometric levelling			■
Traverse compensation			■
Network compensation			■

GEODESY	Standard	Professional	Surveying
Coordinate transformations			■
Transformation from/to local systems			■
Ellipsoids, datums and coordinate systems management			■
Geodesic calculator			■
Drawing transformations			■