

<b>Import</b>	<b>FieldGenius</b>	<b>Other Surveying Software</b>
ASCII	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
DXF	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
DWG	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
DGN	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
LandXML	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
User Coordinate Systems	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Drawing Template	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Export</b>		
ASCII	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
DXF	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
DWG	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
FBK	<input checked="" type="checkbox"/>	
Shapefile	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
User Coordinate Systems	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
RAW/RW5	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
KML	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Sokkia SDR	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Drawing Template	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Project Management</b>		
Create New	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Open Existing	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Delete	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Define Storage Location	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Job Details	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Instrument Details	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Crew Details	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Instrument Settings, Conventional</b>		
EDM Measurement Modes	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Baud Rates	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Time Out	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Min/Max Distance	<input checked="" type="checkbox"/>	
Prims Offsets	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
HA, VA, HD Tolerances	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Curvature and Refraction	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Instrument Settings, Robotic</b>		
Search Modes (Window)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Search Window Range	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Search Window Center	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Radio Connection Settings	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Guide Lights	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Instrument Control</b>		
Set Fine/Coarse Distance Mode*	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Set Measurement Parameters*	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Set Prism Offsets*	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Set Prism Target Height	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Set Backsight Reading on Instrument*	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Use Joystick to Turn Horizontally and Vertically	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Navigate to Point when Staking	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Control of Robotic Functions	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Search for Prism	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Prism Tracking	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Motorized Turn to Angle	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Motorized Flip Scope	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Motorized Turn 90 Left or Right	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Units</b>		
International Feet	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
US Surveyor Feet	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Meters	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Inches/Fractions	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
North Azimuths	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
South Azimuths	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Bearings	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Scale Factor	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Curvature and Refraction	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Survey – Occupy</b>		
Specify Setup Point and a Direction	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Specify Setup and Backsight Point	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Store New Backsight Point	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Shoot Angle and Distance	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Shoot Angle Only	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Set Zero Plate Reading	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Set Azimuth Plate Reading	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Review Backsight Shot Before Storing	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Survey – Check Backsight</b>		
Display Deltas	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Optional Update Backsight Options	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Survey – Export</b>		
Display Deltas	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Optional Store New Point	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Survey – Observe Benchmark</b>		
Select Existing Point	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Define New Elevation	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Displays Deltas	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Update Current Occupy Point	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Survey – Add Invert</b>		
Add Invert Elevations to Existing Point	<input checked="" type="checkbox"/>	
<b>Survey – Traverse Report</b>		
Closing Distance and Direction	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Traverse Precision	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Vertical Error	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Angle Adjust	<input checked="" type="checkbox"/>	
Vertical Adjust	<input checked="" type="checkbox"/>	
Compass Rule Adjust	<input checked="" type="checkbox"/>	
<b>Survey – Store Point</b>		
Point ID	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Nothing, Easting, Elevation	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Description	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Notes	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Voice Recordings	<input checked="" type="checkbox"/>	
Attributes	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Survey – Delete Points</b>		
Delete Last Ten Points	<input checked="" type="checkbox"/>	
Automatic History in Raw File	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

## Measure Modes

Temporary Shot (No Store)	✓	✓
Sideshot (Advanced Mode)	✓	✓
Sideshot (Fast Store)	✓	✓
Multiset (Set Collection)	✓	✓
Multiset (Motorized)	✓	✓
Resection	✓	✓
Horizontal Angle Offset	✓	✓
Vertical Angle Offset	✓	✓
Distance Offset	✓	✓
Manual Distance	✓	✓
Manual Entry	✓	✓
Vertical Plane Projection	✓	✓
Two-Line Intersection	✓	✓
Line – Angle Offset	✓	✓
Line – Distance Offset	✓	✓
Line – Perpendicular Point	✓	✓
Point Scanning	✓	

## Calculation – Traverse/Intersect

By Direction and Distance	✓	✓
By Bearing-Bearing Intersection	✓	✓
By Distance-Distance Intersection	✓	✓
By Bearing-Distance Intersection	✓	✓
By Distance-Bearing Intersection	✓	✓
Recall Distance Between Points	✓	✓
Recall Directions Between Points	✓	✓
Results Saved to COGO History	✓	

## Calculation Curve Calculator

Tangent and PI	✓	✓
Store PT and Center Point	✓	✓
Select Points from MAP	✓	✓
Degree of Curve/Arc Support	✓	✓

## Calculations – COGO Results

Log Files of Traverse Calcs	✓	
Log Files of Inverse Calcs	✓	

## Calculation – Rotate/Translate/Scale

Simultaneous Operations		
Rotation – Define Basepoint		
Rotation – Define Rotation Angle		
Rotation – Define Original and Destination Directions		
Shift – Point to Point		
Shift – Define N, E, Z Deltas		
Shift – Direction and Distance		
Scale – Define Basepoint		
Shift – Define Scale Factor		
Undo Functionality		
Automatic Audit Trail		

## Calculation – Scientific Calculator

RPN Functionality		
Easy Unit Conversion		
DMS Functions (DMS-, DMS+)		
Trig Functions		

## Staking

Points – Imported, Measured, or Calculated		
Points – DXF		
Points – LandXML (CgPoints)		
Store Stake Point or Stake Record Only		
Circle Zero Staking Option		
Cut Sheet Reports		
Define Stake Point Offset		
Stake Station and Offset Along Line/Arc		
Stake Line		
Stake Along DXF Entities		
Stake Arc		
Cut/Fill to Design Elevation		
Turn Instrument to Stake 2D or 3D		
Realtime Visual Staking		
Servo Motor Support		
Remote Stake (Robotic)		
Staking List		

















Stake Surface (LandXML, QSB)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Stake Alignment	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Slope Stake	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Roads (Alignment)</b>		
Manual Input – Centerline, Profiles, and Templates	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
LandXML import – Centerline, Cross Sections, Profiles, Surfaces	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Centerline – Create/Edit Tangents	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Centerline – Create/Edit Curves	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Centerline – Create/Edit CSC (Curve-Spiral-Curve)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Centerline – Create/Edit Spiral	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Centerline – Create/Edit from Existing Figure	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Profile – Create/Edit PVI	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Profile – Create/Edit Parabolic Curve (Equal Tangent)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Profile – Create/Edit Parabolic Curve (Unequal Tangent)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Profile – Station Check Routine	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Template – Create/Edit	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Stakeout – Template Staking	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Stakeout – Slope Staking	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Stakeout – Station and Offset	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Stakeout – Random Station and Offset	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Stakeout – LandXML Cross Sections and Alignments	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Stakeout – Centerline and Loaded Surface File	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Store Alignment Stake Points	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Store Alignment Stake Deltas Only	<input checked="" type="checkbox"/>	
Cut Sheet Reports	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Native LandXML Format	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Advanced Graphics – Real-Time Template Staking	<input checked="" type="checkbox"/>	
<b>Data Management</b>		
Spreadsheet Editor – View, Edit, Delete, Transform	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Raw File Editor – View, Edit, Add Comments, Reprocess	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
DXF Data – View Layers, Freeze, Thaw, Unload	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
LandXML Parcels – Store points, Lines, Stakeout	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
LandXML CgPoints – Load/Unload Datasets	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Surfaces – Load/Unload	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Surfaces, Volumes, Areas</b>		

Create a Real-Time DTM Surface Model As You Take Each Shot	✓	✓
Create a DTM Surface from Imported	✓	✓
Import LandXML DTM Surface and Stake to It	✓	✓
Import a DTM Surface	✓	✓
Stake to a DTM Surface Created Inside FieldGenius / SurvCE	✓	✓
Display DTM Triangles	✓	✓
Display Contours	✓	✓
Display Shaded 3D Views of a Surface	✓	
Compute Volumes Between Surfaces to a Datum	✓	✓
Fixed Area Calculations	✓	✓
Inverse Area Calculations	✓	✓
<b>Features</b>		
Code-Free Linework – 3-Point Arcs	✓	
Code-Free Linework – Lines	✓	
Code-Free Linework – Spline Curves	✓	
Manually Draw Lines or Curves Between Points	✓	
Linework Manager	✓	
Point Description Manager (AutoMAP)	✓	
Add Map Markers Based on Point Description	✓	✓
Hide Points and Lines Based on Point Description	✓	✓
dBase Coordinate File – Read it Using Excel, AutoCAD, LDD & ma	✓	✓
Advanced LandXML Support	✓	✓
Vertical Plane Mapping (measure 2 pts. – obs. angle only for other)	✓	✓
Real-Time Drawing Generation	✓	
One Tap for Line Information	✓	✓
One Tap for Point Information	✓	✓
One-Tap Measure, Store, and Draw Point	✓	
One-Tap Point Display Options	✓	
One-Tap Selection of Active Line Options	✓	✓
One-Tap Code-Free Selection of Linework Options	✓	
One-Tap Selection of Manual Draw Line Options	✓	
One-Tap Zoom Functions (In, Out, Extents, Re-center)	✓	✓
ASCII	✓	✓
Customizable Keyboard Shortcuts	✓	✓
Advanced 3D Viewing (3D Perspective)	✓	

Windows Version for Tablet or Desktop Computers		
<b>Local Transformation (Helmert)</b>		
Horizontal Adjustment		
Vertical Adjustment		
Statistical Analysis with Residuals and RMS		
Automatic Parameter Computations		
Manual Parameter Entry		
<b>GPS Functionality – Status Reports</b>		
Position Solution		
Number of Satellites Used		
PDOP/HDOP/VDOP		
Position Coordinates (Latitude/Longitude or Northing/Easting)		
Position Cursor on Drawing Area		
Hrms/Vrms		
<b>GPS Functionality – Base Setup</b>		
User-Defined Profiles for One-Time Setup		
Antenna True Vertical		
Antenna Slant Measured		
Station ID		
Elevation Mask		
<b>GPS Functionality – Rover Setup</b>		
User-Defined Profiles for One-Time Setup		
Antenna True Vertical		
Antenna Slant Measured		
Position Solution Mask		
1.Autonomous		
2.WAAS		
3.Differential Code 4.RTK Float		
5.RTK Fixed		
Elevation Mask		
PDOP Mask		
Minimum Satellites Mask		
Station ID Mask		
Horizontal RMS Tolerance		
Vertical RMS Tolerance		
Minimum Observations Tolerance		
Minimum Time Occupation Tolerance		



Automatic Measurements Based On Distance or Time		
<b>GPS Functionality – Communication Setup</b>		
Supported Radios		
1.Pacific Crest		
2.Satellite		
3.Trimble		
4.CDMA Modems		
Supported Correction Formats		
1.RTCM		
2.CMR		
3.CMR+		
4.DBEN		
5.Leica		
6.Javad		
7.WAAS		
8.CDGPS		
9.OmniStar		
10.Veripoz		
<b>GPS Functionality – Datum Setup</b>		
Coordinate System Editor for Custom Coordinate Systems		
United States		
1.NAD83		
2.NAD83 HARN		
3.NAD27		
4.State Plane Coordinate System		
5.NAVD88		
6.NGVD29		
Canada		
1.NAD83 (CSRS)		
2.NAD27		
3.UTM/3TM/MTM		
4.CGVD28 (HTv2.0)		
International Systems for Most Countries		
<b>GPS Units</b>		
1. Meters		
2. International Feet		
3. US Survey Feet		
<b>GPS Functionality – Raw Data Storage</b>		
TDS RW5 Format		
Latitude, Longitude and Ellipsoidal Height		
Antenna Height		
Baseline Vector		
Baseline Covariance Matrix		
Start Time		
End Time		

Number of Observations		
Position Solution Type		
Horizontal Precision		
Vertical Precision		
Number of Observed Satellites		
PDOP		
HDOP		
VDOP		
Satellite Plot (GPS, WAAS, Glonass)	