

MicroSurvey® FIELDGenius



INTRODUCTION

Thank you for your interest in FieldGenius – the most productive and easy-to-use data collection software solution ever!

If you are new to FieldGenius, you will be impressed by its graphic user interface, one-screen graphical stakeouts, easily deciphered raw file that you can edit, powerful COGO tools, DXF file support, streamlined connection to your instrument or computer, multi-point resections, roading, training movies, and the easiest, most powerful linework tools in the industry.

FieldGenius supports all common RTK GNSS and generic NMEA receivers, as well as all standard and robotic total stations. With direct support for LandXML, you can stake to DTM surfaces or cross sections from your designed alignment. Real time surface generation allows you to compute volumes instantly.

About MicroSurvey

For over 25 years, MicroSurvey Software Inc. has developed a family of specialized computer software for land surveyors, civil engineers, mapping technologists, engineering technicians, drafting technologists, police officers, and accident reconstruction specialists. MicroSurvey supports what it builds, and the staff values and listens to its customers.

Our Mission Statement

The MicroSurvey Mission defines the way we do business and how we serve our customers. In 1985, we set out on a mission to create solutions that would offer our industry innovative technology and exceptional value.

The way we perceive and react to the ever-changing worldwide business climate continues the MicroSurvey tradition of innovation and value.

We engineer technology that is designed to work the way people think. We empower people – not machines.

Our solutions for surveying, construction, engineering and accident reconstruction are inspired by our uncompromising standards for integrity, quality, leading-edge technology, support and value.

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FieldGenius FEATURES

FIELDGENIUS HAS EVOLVED INTO THE MOST POWERFUL AND PRODUCTIVE DATA COLLECTION SOFTWARE

What sets FieldGenius apart from the competition?

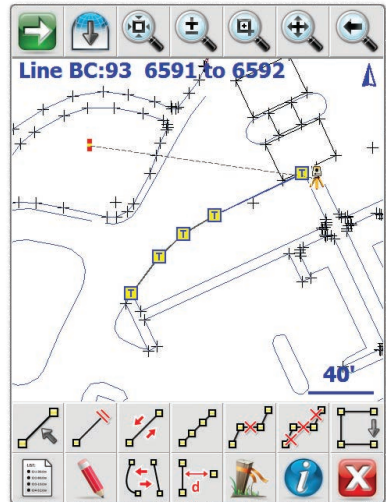
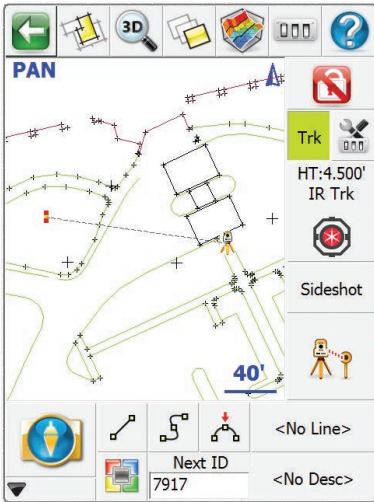
- **Code-free** linework: Linework is created automatically without entering codes and is instantly displayed, eliminating the need for a separate sketch. No need to connect the dots back at the office.
- **Advanced** display with live graphics and intuitive interface. Logical icons, customizable toolbars, smart objects, and easy-to-use GPS and total station controls. Standard or high-definition devices!
- **Easy** stakeout: Choose between graphical compass, grid, and map staking modes to easily stake out points. Viewing direction can be adjusted based on your preferences.
- **Productivity** tasks: Customize your data collector by assigning commands to your keypad keys.
- **Calculating** tools: Access the built-in RPN calculator from any edit field and easily use surveying calculations.
- **Plus** advanced roading, surfacing, slope staking, smart points, DXF & LandXML import/export, and full robotic and GPS support. FieldGenius is the choice of organizations that value productivity.



FieldGenius FEATURES

LINework THE FIELDGENIUS WAY!

MicroSurvey has developed the simplest linework connectivity in the industry. Absolutely NO CODING is required to generate your linework in the field in real time. Other data collection systems force you to predefine codes for generating linework. MicroSurvey has made real-time linework as simple as connecting the dots.



FIELDGENIUS LINework IS EASIER THAN ANY OTHER DATA COLLECTION SOFTWARE:

- You can connect points that have different descriptions.
- Linework can consist of straight segments, arcs, and splines.
- Linework is ALL in 3D, including arcs and splines.
- You can have more than one line with the same description; FieldGenius is smart enough to know which line to work on.
- Multiple lines can connect to the same point.
- Missing segments can be drawn using the pencil tool any time you need to add more info.
- A bad line can be removed instantly by tapping it and selecting "Delete Segment".

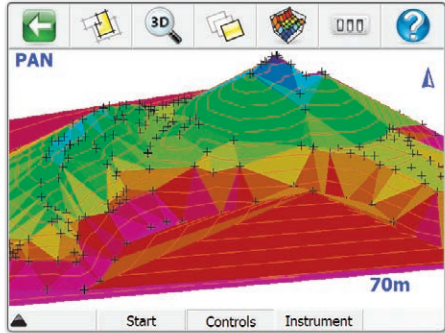
Sound simple? It is. You'll find FieldGenius is the easiest system to generate the most accurate drawing from shots in the field.

FieldGenius FEATURES

FIELDGENIUS INCLUDES MORE ADVANCED FEATURES THAN ANY OTHER DATA COLLECTION SYSTEM

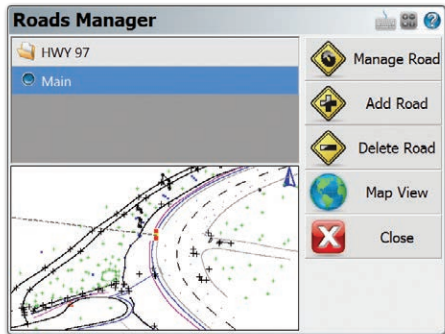
Digital Terrain Modeling, Volumes, and Contouring

- FieldGenius has the ability to utilize DTM surfaces from existing survey data or create a DTM in real time as the data is collected. The TIN and contours will automatically update as each new shot is taken.



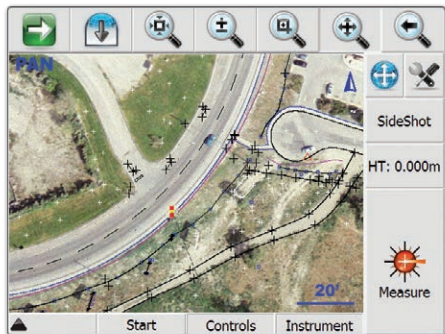
Powerful Roding

- FieldGenius roading allows you to manually input or import your alignment data including centerline, vertical and template data. Powerful alignment staking tools help you stake your points along your alignment with confidence.



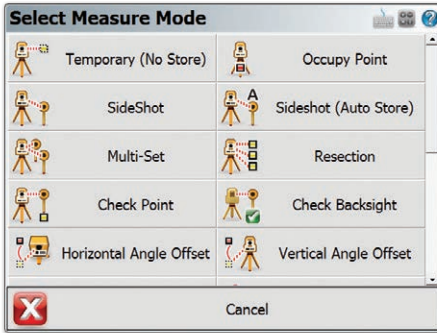
Georeferenced Images

- Use georeferenced images and maps to visualize data in the background of your survey work.



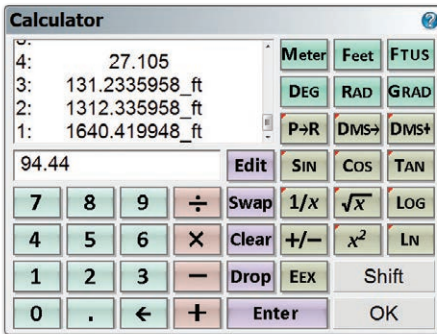
FieldGenius FEATURES

WORK FASTER AND MORE EFFICIENTLY IN THE FIELD WITH THESE PRODUCTIVITY ENHANCEMENTS



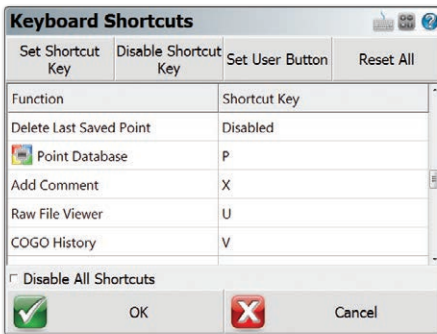
Instrument Control at your Fingertips

- Total Station and GPS functions are available on a common and easy-to-use instrument toolbar. Access measure modes with the click of a button.



Powerful RPN Calculator

- FieldGenius includes an easy-to-use and intuitive RPN calculator. Quick access to the calculator from any edit field makes survey calculations and routines a breeze.



User Definable Shortcuts

- Increase your productivity by assigning frequently used commands to keys on your data collector.

FieldGenius FEATURES

FIELDGENIUS FEATURES BY EDITION

STANDARD AND PREMIUM EDITIONS

FieldGenius Core Functionality

- Modern Windows interface with smart menus, smart objects, and incredible graphics
- The drawing is primary to the interface
- Real-time drawing generation with automatic linework
- Built in COGO – intersections, inverting, and traversing
- Enter, edit, and stake points
- One-button project manager
- DXF import for background project view
- DXF coordination of lines, arcs, polylines, points, etc.
- FBK export for easy Autodesk LDD import of raw data, points, and linework
- Custom ASCII import/export
- Automatic traversing (1 set, 2 set, n sets)
- Traverse closure calculations, angular adjustment, and compass balance
- Traverse re-ordination in the collector
- Raw data editing
- One-button file transfer to desktop systems
- 3D data view with dynamic zoom, pan, and scroll
- Support for built-in GPS on many controllers
- Graphical staking in grid, compass, and map views

GNSS/GPS Features

- Full RTK GNSS support using either network RTK of base/rover pair
- Profiles for multiple receivers – makes setup easy
- Automatic geodetic transformations from WGS84 to local coordinate systems
- Dynamic GPS toolbar – HDOP, VDOP, PDOP and satellites
- Heads-up display shows lat/long or grid coordinates
- Local transformation
- Horizontal/vertical adjustment
- Supports RTCM transformation messages
- Works with Leica Geosystems, Altus, Novatel, NEMA, STONEX, FOIF,

NavCom, Champion, PENTAX, Hemesphere, GeoMax, Geo-Fennel, ComNav and more!

Total Station Features

- Set instrument EDM measurement modes, min/max distance, prism offsets and target height, curvature and refraction, and more
- Control distance mode, measurement parameters, and backsight reading on some models

PREMIUM EDITION ONLY

Advanced/Roading Features

- Surface modeling in real-time
- LandXML alignment, cross section, and zone staking
- Fixed area calculations and volume calculations
- Stake to DTM
- Contouring in real-time
- 3D alignment, cross section, and template view
- Shaded, rendered view of surface data

Robotics Features

- Video point scanning
- Automatic “Turn to Point”
- Navigate to stake point
- Advanced robotic control tools
- Wireless radio and bluetooth support
- Automatic prism tracking
- Assign robotic functions to keypad keys
- Real-time tracking icon in map view
- Support for Leica, GeoMax, SOUTH, KOLIDA, PENTAX, STONEX, FOIF, and many more

* Visit the MicroSurvey website for an updated list of hardware support.



Microsoft Partner

Silver Independent Software Vendor (ISV)

FIELD HARDWARE SUPPORT

FIELDGENIUS WORKS ON MORE HARDWARE MODELS THAN THE COMPETITION!

Data Collector Support:

- Supports most data collectors running Windows Mobiles 6.x or WinCE 5/6/7 based platforms, such as Handheld Nautiz X7/X8, Juniper Archer2/Mesa, Getac PS236/PS336, Hi-Target QStar 6/8, Leica CS15, and many more.
- **Works** on many total station onboard systems, such as Leica TS/MS, iCON robot/builder, South NTS-370, PENTAX W1500, FOIF RTS, STONEX R2W, and more.
- **Excellent** for Windows 7/8/10 tablet devices, such as handheld Algiz 7/10X, Getac T800, Microsoft Surface Pro, and Panasonic ToughPad FG-G1.

Conventional/Robotic Total Station and RTK GPS Systems Support:

- **FieldGenius** supports virtually all conventional total stations dating back to the early '90s. FieldGenius has built-in support for many major manufacturers' robotic total stations and RTK-grade GNSS systems as well. MicroSurvey's robotic and GNSS support has the most intuitive interface in the industry. All robotic and GNSS settings and functions are easily accessible from a control toolbar. We are continually developing FieldGenius to support the newest and most advanced hardware on the market as it becomes available.



DATA COLLECTION HARDWARE

A WINNING COMBINATION

FieldGenius software is bundled with all hardware configurations – making the best use of standard and high definition displays with large buttons and crisp graphics.



Nautix X8 by Handheld exemplifies the evolution of handheld computers. Packed with innovative advancements in PDA technology, it surpasses everything else on the market with its mix of power, functionality, and ruggedness.



The **MicroSurvey DC5** strikes an unprecedented value when it comes to a rugged handheld data collector. This feature-packed device is a simple yet powerful solution to your biggest field data challenges.



The **Archer2 by Juniper Systems** is rugged, powerful, and versatile to handle your most demanding needs. It meets IP67 and Mil-Std-810F standards for drop, vibration, immersion, humidity, and operating temperatures.



For those seeking a larger screen and a more powerful field computer,

ruggedized tablets are the way to go. The **Getac T800** sports a 7-inch screen running Windows 7/8 with all the bells and whistles.

If you want to stick with the leaner Windows Mobile, the **Mesa Rugged Notepad by Juniper Systems** is the perfect solution.



READ WHAT PROFESSIONALS IN THE FIELD HAVE TO SAY ABOUT FIELDGENIUS

"In 2002, when we began using FieldGenius, it was such a solid, intuitive, productive tool that I couldn't imagine at that time how it could be improved. However, it is apparent that the folks at MicroSurvey are striving for perfection, as the latest version shows. I'm skeptical that they can find a way to improve the current version!"

We've tried other field software, sometimes at the request of a new employee that is familiar with one of the leading competitors, but once that person has 15 minutes with the FieldGenius program, they don't want to go back to what they were familiar with. It's just that easy to learn, yet powerful enough to do whatever we need it to, and more.

It seems that on a weekly basis, at least one member of our field crews can be overheard telling another person in the office about the amazingly cool feature that they just found in the program. We love it."

Matt Walters, PLS
Walters & Associates, LLC

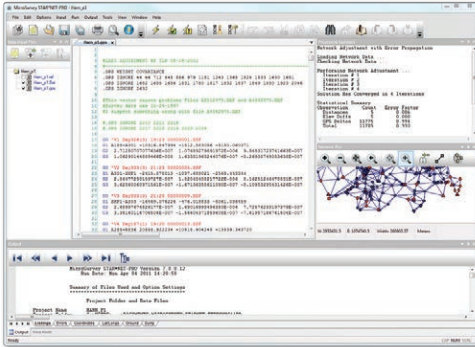
"If you want to do a lot of field coding, go ahead and buy TDS or Carlson, but if you want automatic field coding that requires no coding (other than tapping on an icon for lines, arcs, or splines) then buy FieldGenius from MicroSurvey."

MicroSurvey FieldGenius has the most in-depth website of anyone on the market. Their technical support response is almost instant. They have spent a lot of time and effort making training movies which are on-line and their user manual is the best on the market. Try finding that with TDS or Carlson."

John Roberson, RLS
Georgia



STAR*NET – NETWORK ADJUSTMENT UTILITY



MicroSurvey STAR*NET is an easy-to-use Windows application that adjusts 1D/2D/3D survey networks using rigorous Least Squares techniques.

STAR*NET handles networks containing conventional observations with up to 10,000 adjustable stations. Differential leveling

observations can also be included within a 3D adjustment. Whether a survey consists of a single-loop traverse or a complex network of interconnecting traverses, all observations are adjusted simultaneously to produce a single best-fit solution.



MicroSurvey[®] STAR*NET

MICROSURVEY DATA EXCHANGE

Also known as MSDX, it is a FREE program designed primarily for FieldGenius users. It allows you to easily exchange survey data between FieldGenius and other CAD systems.



MicroSurvey[®] DATAExchange

RELATED SOFTWARE

MicroSurvey CAD – COMPLETE DESKTOP SURVEY & DESIGN

Powered by IntelliCAD®, Field to Finish has never been this easy. Available in 5 different editions, MicroSurvey CAD is the design solution engineered especially for surveyors.

The “Standard” and “Basic” editions provide different feature levels to suit those who calculate and draft, or those who just need robust survey calculations with minimal drafting. “Premium” includes advanced surveyor tools such as COGO, DTM, and DESIGN functions. “Ultimate” includes the surveyor tools plus pointcloud processing. And “Studio” includes everything plus animation capabilities.



IF YOU PREFER AUTOCAD, TRY:



An AutoCAD® plug-in with all MicroSurvey tools



Stand-alone CAD application, built with Autodesk technology™

“The combination of FieldGenius and MicroSurvey CAD gives me a complete software solution for surveying. The integration of the field and office software is unbeatable. Data processing is a breeze. From small stakeout jobs to large developments, MicroSurvey has me covered!”

Mark Cahill, BCLS
AllTerra Land Surveying & Geomatics



TRAINING AND SUPPORT

All MicroSurvey products come with 90 days of FREE support, which includes email and phone support (6am–6pm PST). While on a support plan, you also receive free service packs and upgrades as they become available. Here are some other useful support resources:

[Training Material](http://www.microsurvey.com/helpdesk) (www.microsurvey.com/helpdesk)

Available for free on the MicroSurvey Helpdesk are hundreds of training videos and articles. No access fees, no limitations. Search the knowledge base for answers to your questions – basic or advanced!

[User Forums](http://www.microsurvey.com/forum) (www.microsurvey.com/forum)

The user forum is an excellent community in which to bounce questions off other professional users, like you.

[Feedback Forum](http://feedback.microsurvey.com) (feedback.microsurvey.com)

The Feedback Forum is a revolutionary tool that allows YOU to direct the development of the MicroSurvey products you buy. It collects your suggestions and allows you to vote on suggestions submitted by the other professionals using the software. Use your votes wisely!

[Classroom and Online Training](http://www.microsurvey.com/training) (www.microsurvey.com/training)

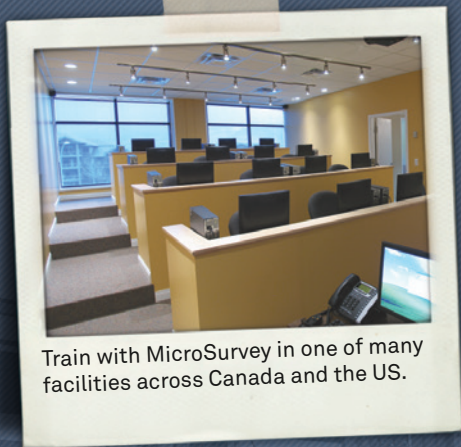
Want something a little more hands-on? MicroSurvey invests in the best trainers and training facilities and online collaboration tools.

Receive instructor-led training while using your own workstation and copies of all software used in the course.

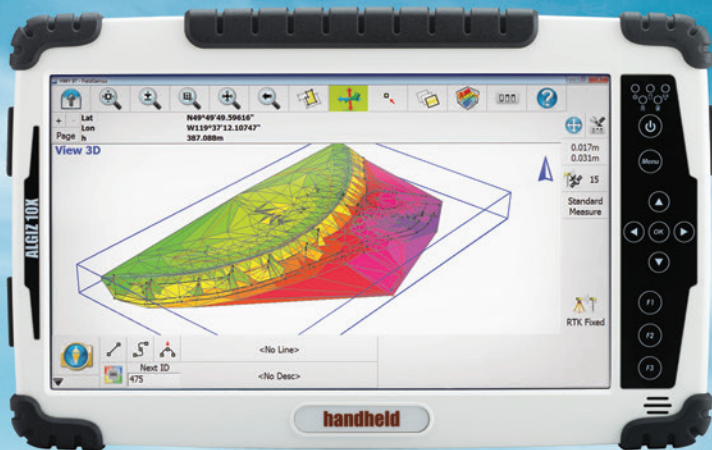
Call for booking, or view our training schedule online.

[Thank You](#)

Please call us or visit our website for more information on how this, or other MicroSurvey products, can help you improve your productivity!



Train with MicroSurvey in one of many facilities across Canada and the US.



 **MicroSurvey**[®]

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