



**SPECTRA**<sup>®</sup>  
GEOSPATIAL



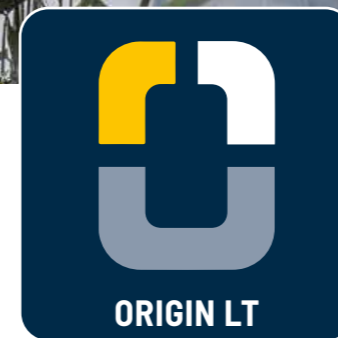
# ORIGIN

## FIELD SOFTWARE



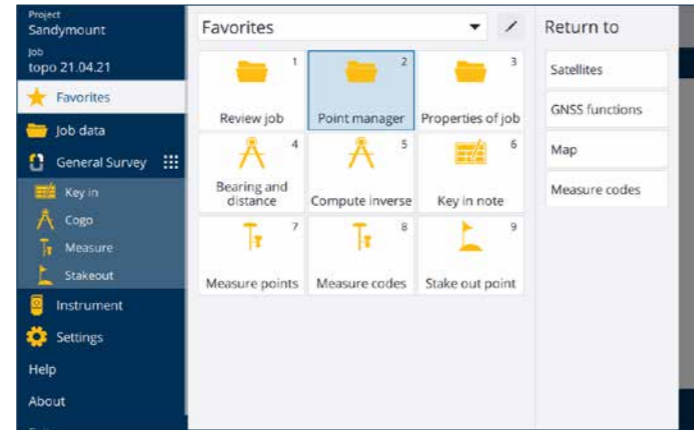
## SPECTRA GEOSPATIAL ORIGIN

Spectra Geospatial Origin field software is the new, modern software professional surveyors need to handle a full range of projects quickly and efficiently. Intuitive and reliable, Origin offers an extensive range of features, including one-tap easy-to-use feature coding, powerful COGO computing, map layer manager, and map-centric workflows for measuring and stakeout. Spectra Geospatial Origin supports the Windows and Android operating systems. Connect Origin to GNSS receivers or robotic or mechanical instruments, or maximize the advantages of both GNSS and conventional in an integrated survey. Rely on it to meet your needs today and future-proof your business with the leading-edge design and technology you'll want tomorrow.



## SPECTRA GEOSPATIAL ORIGIN LT

Spectra Geospatial Origin LT is a brand new entry-level field software with a modern look and feel, capable of running on both Android and Windows 10, and connecting to Mechanical Total Stations and SP60 GNSS.



## TOOLS TO GET EVERY JOB DONE

Use Origin for measurements, feature coding, COGO, road layout, and map centric staking of points, lines, and polylines, and much more.

### BEST IN CLASS

Full feature software for every survey and GIS need, including data collection, calculation, mapping, storage, data management, and much more in one modern software package. Origin works on both Android and Windows operating systems and supports integrated surveys, so you can use GNSS and instrument data in the same job file. Origin is specifically designed to bring the latest technology to Spectra customers and increase your productivity.

### SETUP

Create and save conventional, GNSS, and integrated survey, survey styles to quickly connect to your hardware in an instant. Define and store parameters for the rover and the base station, site calibration, stakeout, observed control, and many more options, making the setup quick and easy.



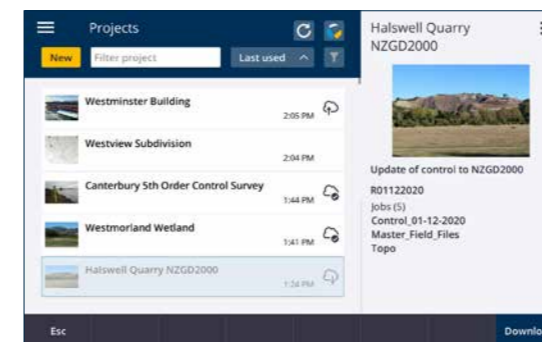
### FEATURE CODING

Easily create features, attributes, and linework on-site. Using Line or Polygon code, Origin automatically draws lines and joins polygons in real time, making it easy to verify the job before leaving the site. Process and adjust the data in Spectra Geospatial Survey Office.



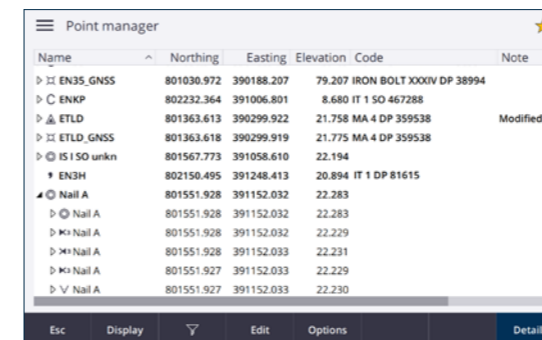
### MAP-CENTRIC WORKFLOWS

Seeing data graphically increases productivity and reduces errors. Origin's crisp new map user interface is designed to do just that. Measure or stake out straight from the map. To perform calculations simply tap two points and compute the inverse.



### CLOUD CONNECTIVITY

Take advantage of cloud connectivity to connect the right people to the right data at the right time. Sync Manager enables cloud data transfer between Origin and office software such as Spectra Geospatial Survey Office, and other third-party office software.



### POINT MANAGER

Use the Point manager to view all points and observations in your job. It increases productivity by making it easy to review observations, the best point, as well as duplicated points. You can edit details like the code or antenna/target height for groups of points or individual points.



## ROBUST ORIGIN FEATURES

Packed with features, Origin makes it easier to get every job done. Powerful features include:

### Stake Directly from the Map

Origin supports a wide range of map files so you can use the same files in the field and office. Stake points, lines, arcs, polylines, or surfaces directly from DXF, LandXML and more.

### Integrated Surveying

Origin enables a controller to connect with both a total station and a GNSS receiver simultaneously. It's easy-to-use design enables you to quickly switch between either instrument, and capture your observations.

### Layer Manager

Origin's layer controls make it easy to control exactly what you see, and what you can stake out. Control what is shown by file, point type, or feature class. It doesn't get any easier.

## ORIGIN SUBSCRIPTIONS

Always have the latest features with Origin Subscriptions, at an accessible yearly price. Easily synchronize data to the cloud for sharing with your team, saving everyone time and reducing the risk of error.



## ORIGIN MODULES

Choose what works best for your project.

### Origin Max

The complete field software for all your survey needs. Supports workflows with GNSS receivers and optical instruments.

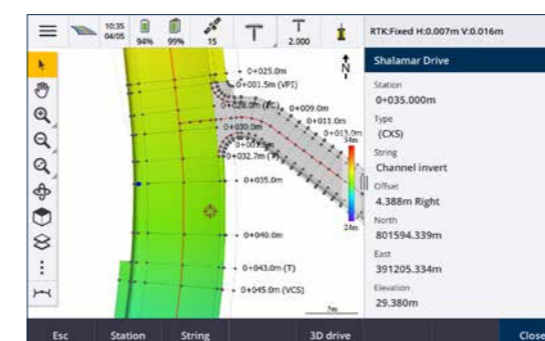
### Origin GNSS

Field software to support all your GNSS receiver workflows.

### Origin Total Station

Field software to support all your optical instrument workflows including robotic and mechanical total stations.

## ORIGIN ADD-ONS



### Roads

Spectra Geospatial Origin Roads is a powerful add-on application designed to stake out all elements of a road, be it a relatively simple road design created on the controller or a more complex design built in the office. Origin Roads has an intuitive graphical interface and supports RXL, GENIO, and LandXML road files.



# FUTUREPROOF, RELIABLE, AND PRODUCTIVE

Spectra Geospatial Origin is a new, modern land survey software in a full-feature package. It is designed for use on a range of Spectra Geospatial controllers. The range offers a choice of Android or Windows 10 operating system, screen size, and keypad options. For full survey workflows in all standard job types, Origin delivers the robust features you need today and the ones you'll rely on tomorrow.

## Supported Data Collectors



### Ranger 5

Architected around high-performance and productivity, Spectra Geospatial Ranger 5 is our fifth-generation Ranger, built on an Android OS, which has a heritage tracing back to the first modern field computer for land surveyors. This hard-working, rugged controller is built to efficiently get every job done, especially when paired with our Spectra Geospatial Origin field software. Its rugged five-inch screen, full keyboard, and outstanding battery life makes Ranger 5 a reliable, easy-to-use data collector in the toughest environments, even with a glove on. You can rely on Ranger 5, even on long days, to get all the jobs done, from A to Z.

**Our new Android supporting controller.**



### ST10

The ST10 tablet has a bright, high contrast, sunlight readable 10-inch screen to give you the area you need to easily see your data or manage map layers. Combined with its powerful processing capabilities you'll be more productive, achieve faster results, and catch errors in the field, saving valuable time and money.



### Ranger 7

With its large 7-inch touch screen, full keypad, and Windows® 10 Pro operating system, Ranger 7 is built to hit the mark for surveyors requiring an easy-to-use, rugged data collector. It seamlessly runs Spectra Geospatial Origin, MS Office applications, Skype, email, and other survey and GIS applications.



### MobileMapper 60

The rugged, slim, lightweight MobileMapper® 60 offers superior durability, efficiency, and accuracy for professional handheld data collection which works wonders when paired with Spectra Geospatial Origin.

Features	Origin Max	Origin GNSS	Origin TS	Origin LT
<b>File</b>				
Linked Files: JOB, CSV & TXT, DXF, LandXML	•	•	•	•
Linked Files: RXL, GENIO	•	•	•	
Import Control (CSV, TXT)	•	•	•	•
Customizable Export via Stylesheets	•	•	•	•
Send / Receive via cloud	•	•	•	•
Copy job files to/from	•	•	•	
<b>Job</b>				
Review job	•	•	•	•
Point manager	•	•	•	•
QC Graph	•	•	•	
Edit points & polylines	•	•	•	•
Auto real-time linework	•	•	•	
Favorites & Fn keys	•	•	•	•
Multiple sets of Favorites & Fn keys	•	•	•	
Job templates; Metric, Int Feet, & US Feet Scale factor only	•	•	•	•
Job templates; New, Import, Edit	•	•	•	
Calculator	•	•	•	•
<b>Survey (Conventional Mode)</b>				
Survey styles	•		•	•
Integrated survey	•			
Station setup single backsight	•		•	•
Station setup multiple backsights	•		•	
Resection setup	•		•	•
Reflines station setup	•		•	
Remote elevation	•		•	
Station setup; Use last	•		•	•
Station setup; Copy last	•		•	
Measure rounds	•		•	•
Measure codes	•		•	•
Continuous topo	•		•	•
Angles & distance	•		•	•
Angles only, H. Angle only	•		•	•
Angle offset, H. Angle offset, V. Angle offset	•		•	•
Distance offset	•		•	•
Dual-prism offset	•		•	
Circular object	•		•	
Remote object	•		•	
Measure to surface	•		•	
Measure points on a plane	•		•	
Measure 3D axes	•		•	
Robotic + Servo	•		•	
Check point	•		•	
GDM & NMEA data output	•		•	

Features	Origin Max	Origin GNSS	Origin TS	Origin LT
<b>Survey (GNSS Mode)</b>				
Survey styles	•	•		•
Base & Rover setup	•	•		•
Swap base receiver	•	•		
Satellite information	•	•		•
Import files from receiver	•	•		•
GNSS functions	•	•		•
Measure points; Topo	•	•		•
Measure points; Rapid, Observed control, Calibration,	•	•		
Measure points; Compensated, MultiTilt	•	•		
Measure points with vertical offset	•	•		•
Measure codes	•	•		•
Continuous topo; Fixed time, Fixed distance, Stop & go	•	•		•
Continuous topo; Time & distance, Time or distance	•	•		
QC1, QC2, QC3	•	•		•
Site calibration	•	•		•
GPS, L2e, L2C, GLONASS, Galileo, QZSS, BeiDou	•	•		•
L5	•	•		
SBAS	•	•		•
Independent SV subset A/B measurement	•	•		
eBubble	•	•		
GNSS contacts	•	•		•
Laser rangefinder	•	•		
Echo sounder	•	•		
<b>Stakeout</b>				
Stake point list	•	•	•	•
Stake point with auto-increment	•	•	•	
Stake closest	•	•	•	
Stake point offsets	•	•	•	
Stake lines; To the line	•	•	•	•
Stake lines; Station on line	•	•	•	•
Stake lines; Station/offset from line	•	•	•	•
Stake lines; Slope from line	•	•	•	
Stake lines; Station/skew offset from line	•	•	•	
Stake lines; Distance along line	•	•	•	
Stake arcs; To the arc	•	•	•	•
Stake arcs; Station on arc	•	•	•	•
Stake arcs; Station/offset from arc	•	•	•	•
Stake arcs; Slope from arc	•	•	•	
Stake arcs; Intersect point of arc	•	•	•	
Stake arcs; Center point of arc	•	•	•	
Stake arcs; Station/skew offset from arc	•	•	•	

Features	Origin Max	Origin GNSS	Origin TS	Origin LT
Stake polylines; To the polyline	•	•	•	•
Stake polylines; Station on polyline	•	•	•	•
Stake polylines; Station/offset from polyline	•	•	•	
Stake polylines; Slope from polyline	•	•	•	
Stake polylines; Station/skew offset from polyline	•	•	•	
Stake polylines; Distance along polyline	•	•	•	
Stake to DTM	•	•	•	
Stake offset to DTM (Vert & Perpendicular)	•	•	•	
Configurable stakeout deltas	•	•	•	•
Define stakeout tolerance	•	•	•	•
Stakeout graphics orientation; North, Sun	•	•	•	•
<b>COGO</b>				
Fix station setup; rotate/translate	•		•	•
Key in points	•	•	•	•
Key in line; Two points	•	•	•	•
Key in line; Brng-dist from a point	•	•	•	•
Key in arc; Two points & radius	•	•	•	•
Key in arc; Arc length & radius	•	•	•	
Key in arc; Delta angle & radius	•	•	•	
Key in arc; Intersect point & tangents	•	•	•	
Key in arc; Two points & center point	•	•	•	•
Key in arc; Three points	•	•	•	•
Compute point; Bearing & distance	•	•	•	•
Compute point; Turned angle & distance	•	•	•	•
Compute point; Brng-dist intersect	•	•	•	•
Compute point; Brng-brng intersect	•	•	•	•
Compute point; Dist-dist intersect	•	•	•	•
Compute point; Four point intersection	•	•	•	
Compute point; From a baseline	•	•	•	
Compute point; Project point to line	•	•	•	
Compute point; Project point to arc	•	•	•	
Compute distance; Between two points	•	•	•	
Compute distance; Between point & line	•	•	•	
Compute distance; Between point & arc	•	•	•	
Compute volume	•	•	•	
Compute average	•	•	•	
Area calculations, including subdivide	•	•	•	•
Create surface	•	•	•	
Arc solutions	•	•	•	•
Triangle solutions	•	•	•	
Subdivide; Line & Arc, including offsetting	•	•	•	•
Station & offset; Key in, Review	•	•	•	•

Features	Origin Max	Origin GNSS	Origin TS	Origin LT
<b>Map</b>				
Map centric workflows	•	•	•	•
Map toolbar	•	•	•	•
CAD toolbar	•	•	•	
Snap-to toolbar	•	•	•	•
Pan to point, Pan to here	•	•	•	
Configurable Zoom extents	•	•	•	
<b>Map file display</b>				
Visible & Selectable controls	•	•	•	•
- DXF, SHP, LandXML, CSV & TXT	•	•	•	•
- WMS, TTM	•	•	•	
Display; Names, Codes, Elevations, Symbols	•	•	•	•
Display; Stationing	•	•	•	
Filter map by entity type	•	•	•	
Filter map by layer & code	•	•	•	
Explode polylines (DXF, Shape & LandXML)	•	•	•	•
Create nodes (DXF, Shape & LandXML)	•	•	•	•
<b>Map COGO &amp; Surveying</b>				
Functions available from Map	•	•	•	•
- Measure point	•	•	•	•
- Measure calibration point	•	•	•	
- Review	•	•	•	•
- Delete point	•	•	•	•
- Navigate to point	•	•	•	•
- Stakeout; Point, Line, Arc, Polyline	•	•	•	•
- Turn to point	•	•	•	
- Check; Point, Backsight	•	•	•	
- Key in; Point, Line, Polyline	•	•	•	•
- Key in arc; 3 points	•	•	•	•
- Key in arc; 2 points + center	•	•	•	•
- Create surface	•	•	•	
- Compute area	•	•	•	•
- Compute average	•	•	•	
- Compute volume	•	•	•	
- Compute inverse	•	•	•	•
- Compute intersection; 4 points	•	•	•	
- Compute intersection; 2 lines	•	•	•	
- Subdivide; Line, Arc	•	•	•	•
- Offset; Line, Polyline	•	•	•	•

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