K30 Pro

Improving Never Stops

K30 Pro is designed to enhance your performance in the field survey and to provide the most reliable positioning result.

It integrates a 336 channels world leading GNSS positioning engine, a high precision IMU, a long range UHF radio, and a new interact operating system.

More features are to be discovered by you...

All Constellations and More Channels

With 336 GNSS channels solution, the usability of Glonass & Galileo satellites is greatly improved, so in harsh environment K1 PRO is able to track more satellite than other receivers and provide more reliable positioning result.

More Powerful and More Durable

Thanks to the 3W Farlink radio, when it works as an UHF base station K30 Pro is able to transmit correction data farther than others, in optimal condition the working range can be 10 to 15 km.

The shock-resistant frame, water-proof frame all have been enhanced, now the overall proof level is IP68.

Superior Endurance, Up to 25 hours working

The newly developed power management system allows K30 Pro to work for 10 to 25 hours and can be recharged by a type-C connector.

Color Touch Screen, Makes Workflow Simpler

Users can operate K30 Pro by touch screen and key buttons, easy and fast.

Star-Fill

This function will let you continue working a few minutes when radio or mobile signal is becoming very poor or even lose in blind area, the accuracy is down to 2 cm.

Star-Link Correction via L-band

2cm accuracy Star-Link correction service is available on K30 Pro. After subscribing to it, surveyor can work almost anywhere in the world without a base station or VRS network.

SPECIFICATIONS

GNSS Performance

Channels	336
GPS	L1C/A, L1C, L2C, L2E, L5
GLONASS	L1C/A, L1P, L2C/A, L2P, L3
BeiDou	B1, B2, B3, B1C, B2A
Galileo	E1, E5A, E5B, E5AltBOC, E6
QZSS	L1C/A, L1 SAIF, L2C, L5, LEX
SBAS	L1C/A, L5
IRNSS	L5
L-Band	Star-fill: 5 minutes, down to 2 cm accuracy Star-Link: down to 2 cm accuracy (need subscription)

Positioning Accuracy

Code Differential GNSS Positioning	Horizontal: ±0.25m+1ppm Vertical: ±0.50+1ppm
SBAS Positioning	Typically<5m 3DRMS
High Precision Static	Horizontal: ±3mm+0.1ppm Vertical: ±3.5mm+0.4ppm
Fast Static and Static	Horizontal: ±2.5mm+0.5ppm Vertical: ±5mm+0.5ppm
Post Processing Kinematic (PPK)	Horizontal: ±2.5mm+1ppm Vertical: ±5mm+1ppm
Real Time Kinematic (RTK)	Horizontal: ±8mm+1ppm Vertical: ±15mm+1ppm
Network RTK (VRS, FKP, MAC)	Horizontal: ±8mm+0.5ppm Vertical: ±15mm+0.5ppm
RTK Initialization	Time 2-8s, reliability >99.99%
Positioning Rate	1Hz-50Hz
Inertial Measurement	Tilt Angle: up to 60 degrees Accuracy: down to 2 to 5cm (Typically less than 10mm+0.7mm/°tilt)

Data Formats

Positioning Data	NMEA 0183, PJK plane coordinates, Binary code, Trimble GSOF
Differential Correction	RTCM 2.1, RTCM 2.3, RTCM 3.0, RTCM 3.1, RTCM 3.2,CMR,CMR+
Static	STH, Rinex 2, Rinex 3
Network	Supported VRS, FKP, MAC, Ntrip

Operation Mode

Base	Base Internal Radio\ Base Network\ Base External Radio\ Base WIFI
Rover	Rover UHF\ Rover Network\ Rover Bluetooth
Static	Static\ PPK

UHF Radio Chracteristics

TX\RX	Up to 3W Transmitting and Receiving
Frequency Range	410-470MHz
Protocols	Farlink\ Trimtalk\ SOUTH(KOLIDA)
Channels	60 channels for Farlink protocol 120 channels for other protocols

Hardware

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Size	165mm*108mm
Weight	1.35kg
Data Storage	16GB SSD internal storage Support external USB storage (up to 64GB) Automatic cycle storage Changeable record interval Up to 20Hz raw data collection
Communication	1.3 inches colorful touch screen 3 Indicator lights, 2 Key Buttons 1 Type-C USB port 1 5-PIN LEMO external power port 1 UHF antenna port 1 PPS output port 1 SIM card slot Linux OS, WEB UI, WIFI: 802.11 b/g/n standard Bluetooth 4.2 standard and Bluetooth 2.1+EDR NFC, Network: 4G LTE\3G WCDMA\2G GSM Supported USB, FTP, HTTP data communication
Voice Guide	Intelligent voice technology provides status indication and operation guide Chinese, English, Korean, Russian, Portuguese, Spanish, Turkish and user define
Environment	Operating: -30℃ to +70℃ Storage: -40℃ to +80℃
Humidity	100% condensation
Ingress Protection	IP68 waterproof, sealed against sand and dust
Shock	Survive 2m pole drop on concrete

Power

Battery	7.2V, 10000mAh unremovable battery
Battery Life	Base up to 10 -14 hours Rover up to 20 - 27 hours Static up to 25 - 30 hours (when environment temperature is 25℃)
Fast Charge	3.5 - 4 hours charge to full power
USB recharge	Supported

FIELD SOFTWARE

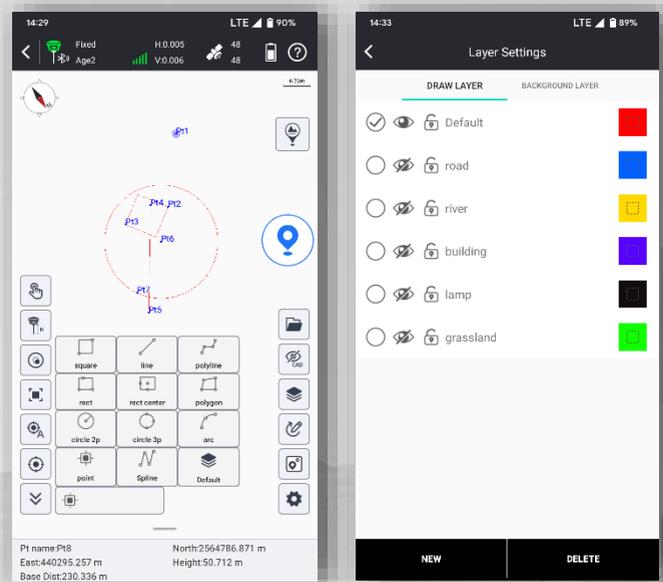K Survey
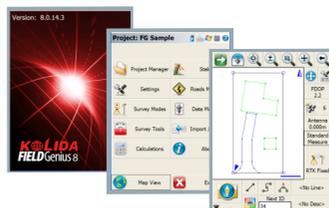
Field Genius

Surv X

Ksurvey APP
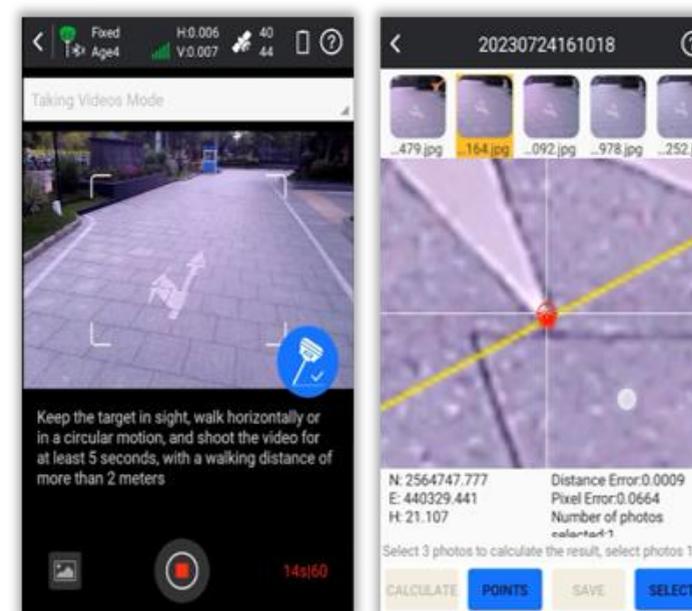## Field Data Collection & Mapping: The Most Advanced is Here

Measure & Draw : Save Time in Field work and Office

This feature allows you to draw the result map while completing point measurements.

• Before measuring points, users can choose the shape of the target object to be measured from 11 preset figures. The software will guide you to measure points in an order and automatically connect lines and complete the drawing of the figure.

• The .dxf or .dwg maps created on-site can be used directly in office work.

• Users can assign measured objects with different attributes, to different layers for measurement and management, making no mistakes.

CAD Draw : Drafting without a PC

This feature enables CAD drawing capabilities, which were previously only possible on a PC. Now surveyors can edit CAD map on RTK controller or tablet or phones.

• CAD drawing does not require a computer.

• CAD files prepared on office PCs can be edited and managed by users on RTK data collection terminals.

• Drawing tools include up to 11 types of figures and one type of text.

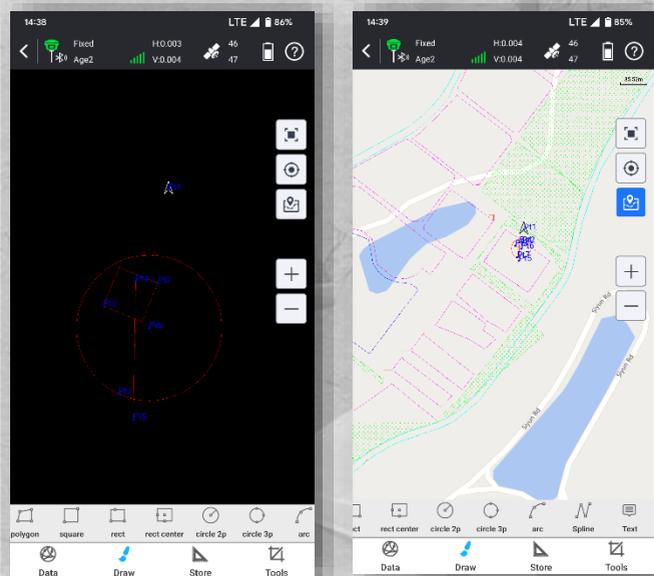### Visual Positioning : Industry-Leading Non-Contact Measurement Technology

Photogrammetry Measurements can be conducted by taking pictures or videos. Coordinates of all points in the photos can be acquired.

• Now, target points that are inaccessible due to dangerous environments, poor satellite signals, or impassable terrain can be measured remotely.

• The captured image data can also be used with software like SGO, Pixel4D, DJI Terra, and CC for 3D modeling.

• Image measurement data can also be combined with drone measurement data to address issues of blurriness and deformation in ground data models collected by drones.

(This function only works with the receiver models that have front-facing camera or dual-cameras)

Static & PPK Measurement : More Assistance Now is Available
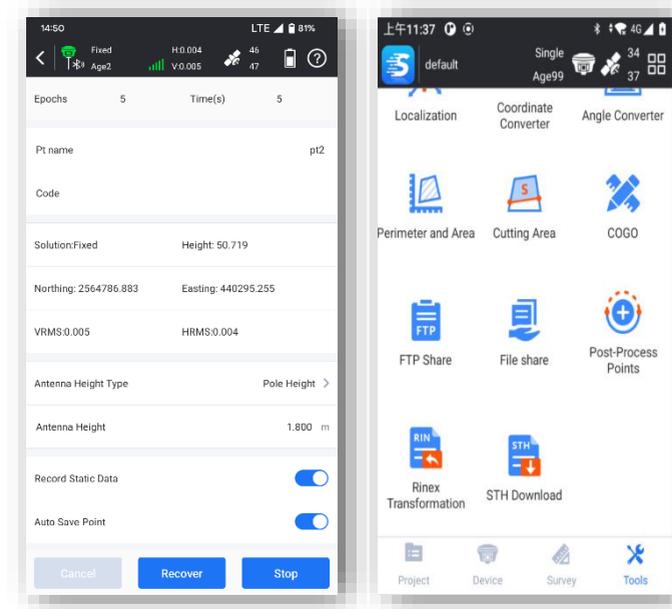

The software provides both static and PPK data collection capabilities.

• Data can be downloaded wirelessly, no need for a PC and cables.

• It is possible to convert .sth files into RINEX files right on the data collector or tablet or your phone, no need of PC.

• Data can be shared with others through mobile Internet.

• The accuracy of PPK data collection is as high as Trimble equipment, the result can be directly imported for use in TBC.

Ksurvey APP
Stakeout: Lighten Your Load, Increase Your Output

CAD Stake-Out : Save Labor Cost and Reduce Errors
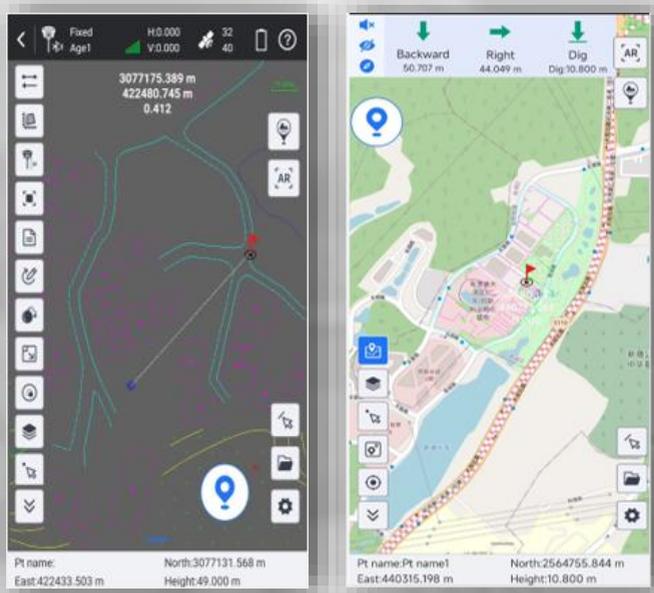
Traditional data collection software requires users to import points or lines to be setout from .csv or .txt files, users need to spend quite a lot of time to edit point and line libraries.

Moreover, for complex shapes such as curves, circles, and polygons, the traditional stake-out process is complicated. Now, our new CAD stake-out program offers a superior solution for surveyors.

• No need for manual editing of point libraries.
• Staking-out geometric shape is faster and easier.

• No need for obtaining coordinate files before work. Staking-out can be done with just a CAD drawing.
• Online maps and CAD drawings can be displayed simultaneously, improving accuracy.
• AR guide lines make staking-out more intuitive.

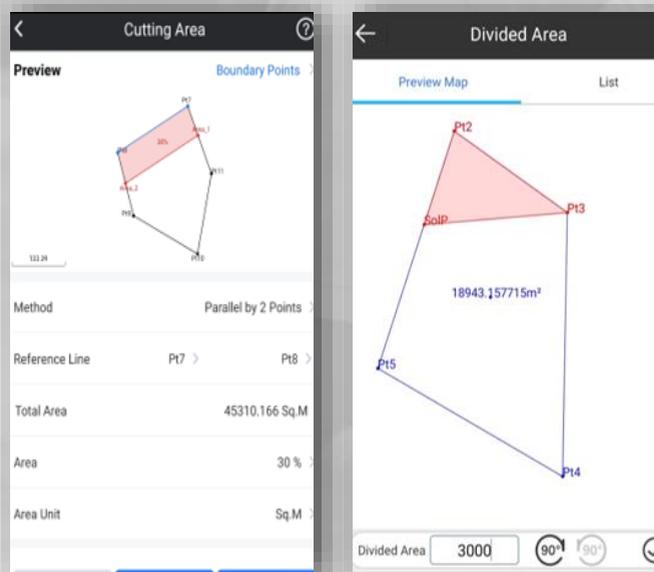### Live-View Stake-Out : Faster, More Accurate, More Intelligent

Users utilize the real-time imagery captured by the camera at the bottom of the receiver and the AR guide lines displayed by the software, to locate the target points.

• When users perform stake-out with a dual-camera GNSS receiver, the software can call upon both cameras to work together. At medium to long distances, the software uses the front-facing camera to indicate the direction of travel, and at close range, it uses the downward-facing camera to find the specific location. This further increases the speed of staking out.

• AR guide lines can be displayed in point staking out, line staking out, and CAD staking out programs.

(This function only works with the receiver models that have downward-facing camera or dual-cameras)

Additional Features

Compatible with Multiple Devices

The App Now works with GNSS, Total Station, Echo Sounder, GIS Tablet, in future it will work with SLAM Scanner, Terrestrial Lidar Scanner.

Innovations for Better User Experience

■ RTK Data Backup

■ QR Code Share

■ Multiple Basemap Support

■ Basemap Adjustment

■ Network Mount Point Sorting

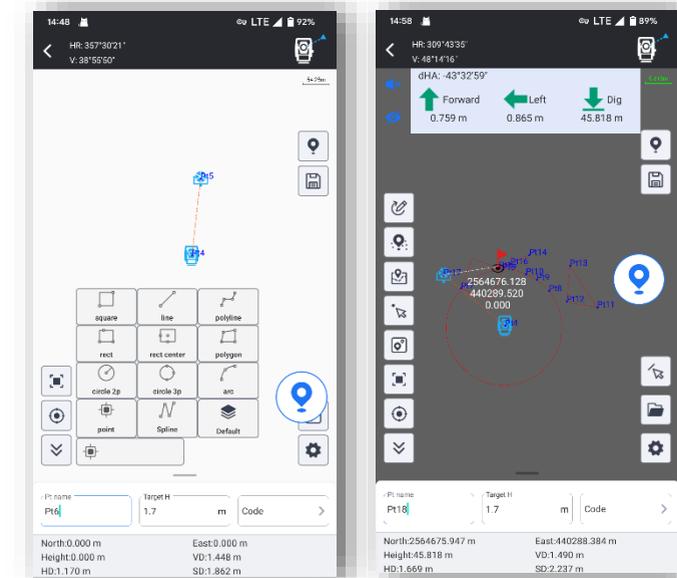■ NMEA Output Setting

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Area Division : Developed for Professional Cadastral Survey and Stake Out

Select points to form a polygon, and directly identify the area division points for the surveyor to stake out. There is no more need for the user to guess a position to measure, and then to adjust.

• Six methods of division to determine the area division points. The methods are flexible and suitable to different user needs.

• The graphic display is intuitive and understandable.

KOLIDA Geo Office (KGO)
Ideal GNSS Data Processor, Help You To Keep Advancing
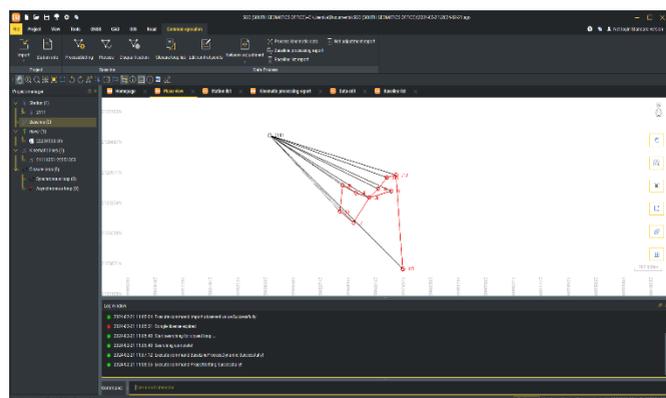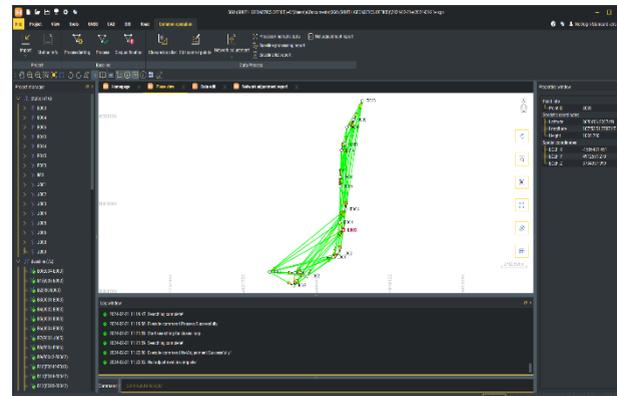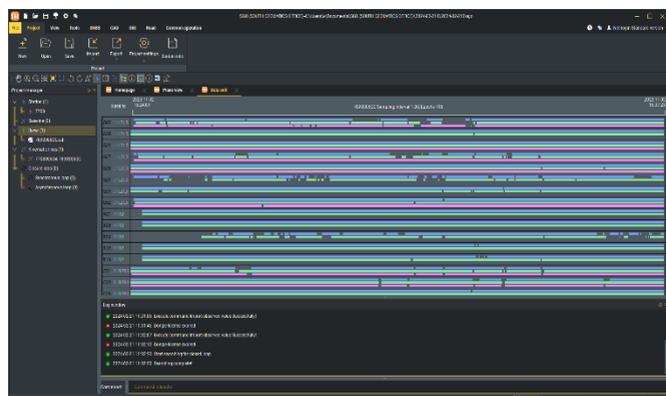
Data Processing & Reporting

When surveyors need to do post-processing of GNSS data, our software always can provide state-of-the-art technology to help you to produce optimal results.

User just need to import field data, the software will automatically process GNSS baselines.

Once results come out, the software can generate reports.

RINEX Import and Export

This feature enables users to import the third party GNSS receiver data into our software and post-process it, by using the industry standard RINEX format.

High Accuracy Guaranteed

RTK check, the unique function in our software, can compare RTK and PPK results to automatically acquire the most accurate coordinates for each target point.

It fills up the gap of poor corrections in RTK or hindered observations in PPK.

This improvement is to provide guarantee for your every survey.

3D Modelling

User can import photogrammetry image data into the software, to achieve 3D modeling, visually presenting geographic information data such as coordinates, areas, and volumes.

Model data can be transformed into different formats and applied with various coordinate parameters based on actual needs, making it adaptable to a wider range of application scenarios.