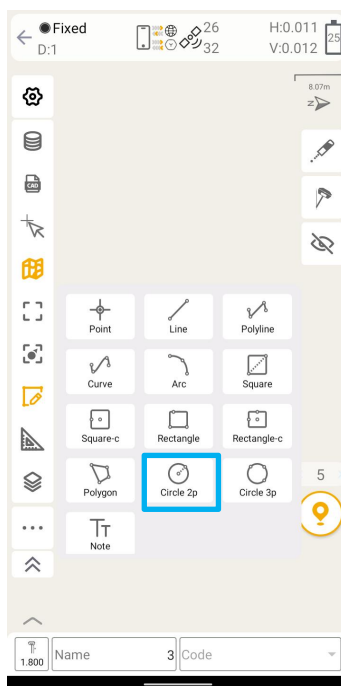
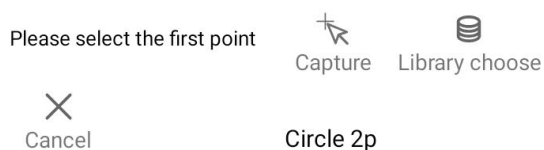


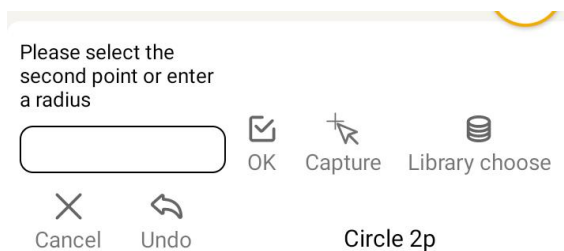


The drawing steps are as follows:

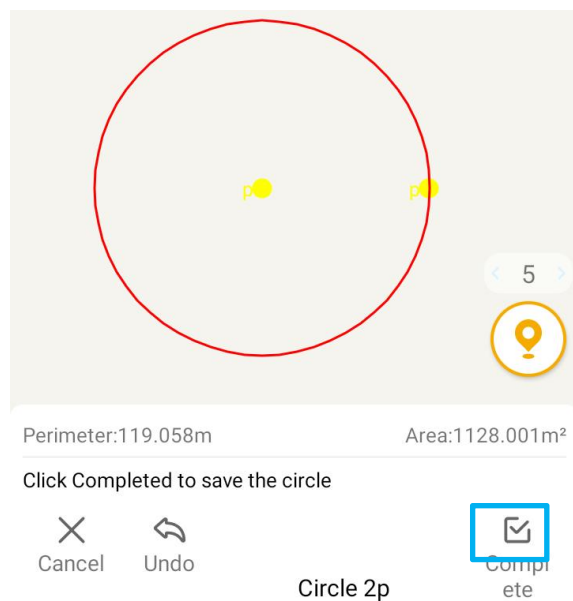
1) Select the center point of the circle by clicking on the map, selecting points with the Capture tool, or selecting points from Element. The selected point will be displayed in yellow and will not be saved to Element. You can click Cancel to exit the drawing mode.



2) After completing the first point selection, enter a radius or select the second point by clicking on the map, selecting points with the Capture tool, or selecting points from Element. You can click Cancel to exit the drawing mode. Click Undo will cancel the selected point.

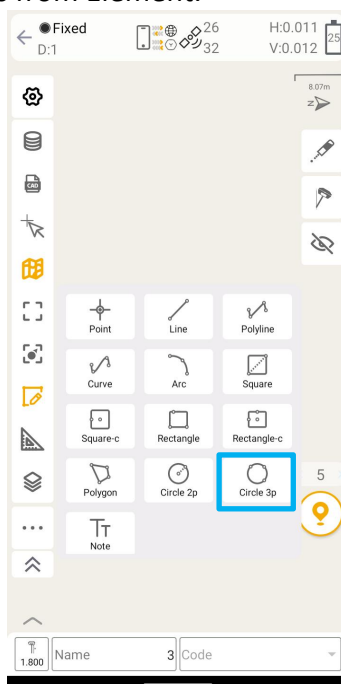


3) After completing the selection of radius, the bottom prompts "Click Completed to save the circle". Click Completed to complete the circle drawing.



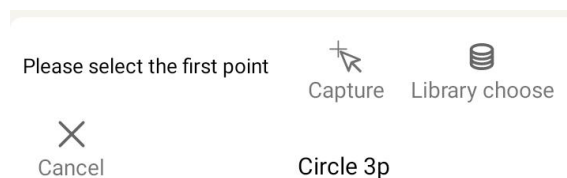
7.2.12 Circle 3p

Draw a circle with 3 points on the circle by clicking on the map, selecting points with the Capture tool, or selecting points from Element.

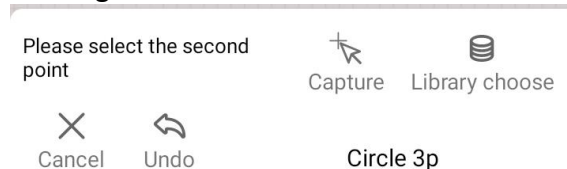


The drawing steps are as follows:

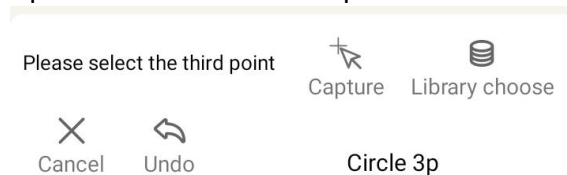
1) Select the first point of the circle by clicking on the map, selecting points with the Capture tool, or selecting points from Element. The selected point will be displayed in yellow and will not be saved to Element. You can click Cancel to exit the drawing mode.



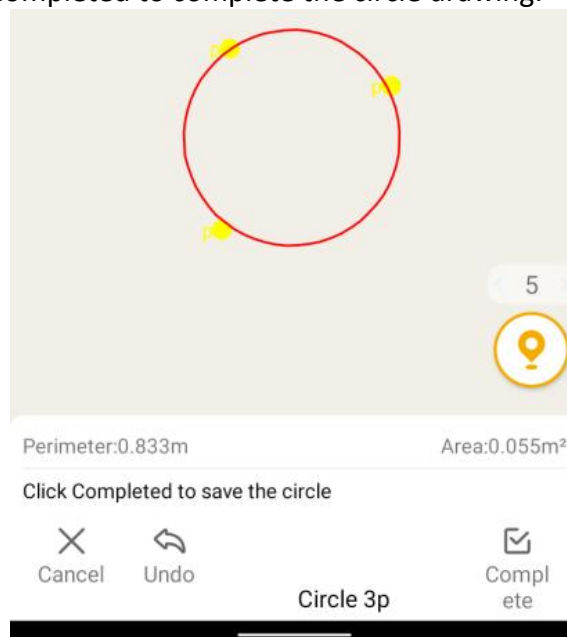
2) After completing the first point selection, select the second point by clicking on the map, selecting points with the Capture tool, or selecting points from Element. You can click Cancel to exit the drawing mode. Click Undo will cancel the selected point.



3) Repeat the second step and select the second point and the third point.

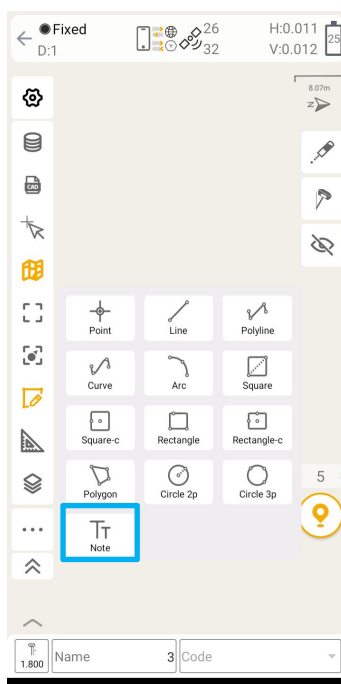


4) After completing the selection of 3 points, the bottom prompts "Click Completed to save the circle". Click Completed to complete the circle drawing.



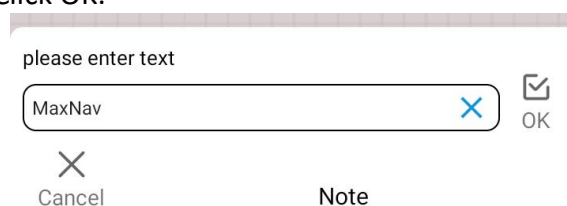
7.2.13 Note

Text can be added to drawings.

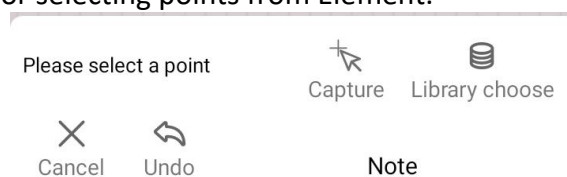


The drawing steps are as follows:

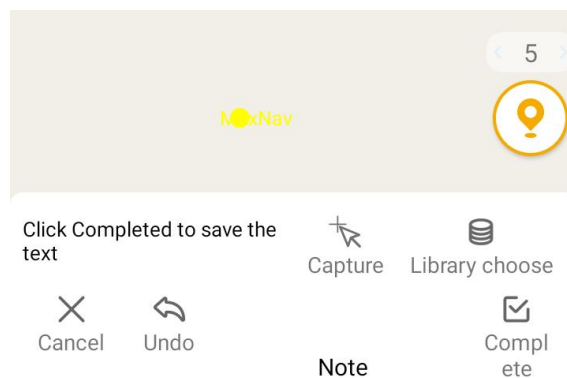
1) Enter text content. Click OK.



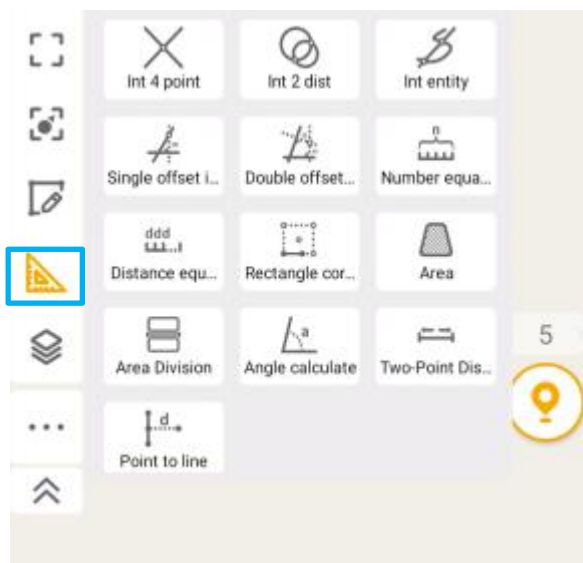
2) After entering text content, select the point by clicking on the map, selecting points with the Capture tool, or selecting points from Element.



3) After completing the selection of Note point, the bottom prompts "Click Completed to save the test". Click Completed to complete the note drawing.

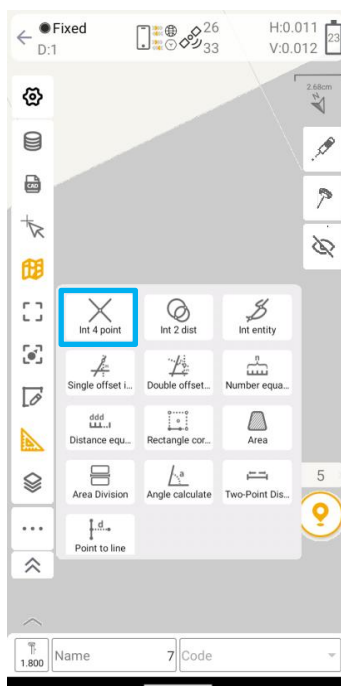


7.3 CAD Survey



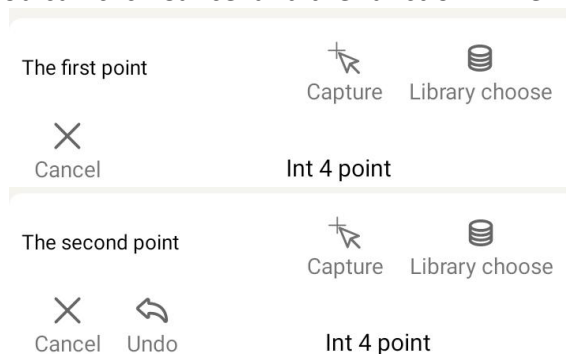
7.3.1 Int 4 point

Select four points to form two lines and then calculate the intersection point of the two lines or their extensions. Click Finish to save the intersection point to Element.

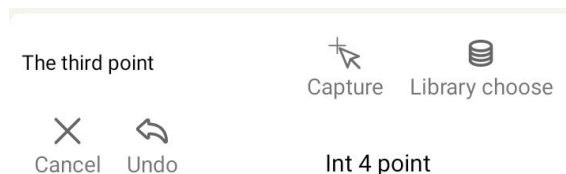


The steps are as follows:

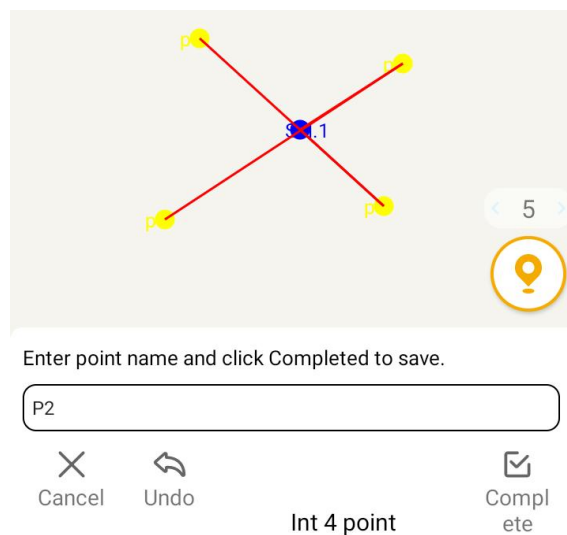
1) Select the first point by clicking on the map, selecting points with the Capture tool, or selecting points from Element. The selected point will be displayed in yellow and will not be saved to Element. You can click Cancel and the function will exit.



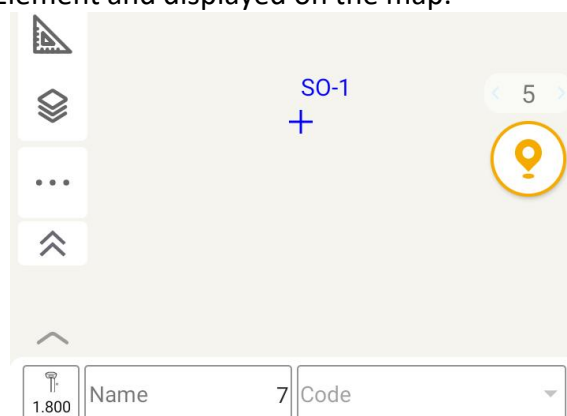
2) The prompt below is to select the second point, which is the same as the first point. After completing the point selection, a line will be automatically formed with the first point.



3) The selection method for the third and fourth points is the same as above. After the point selection is completed, the intersection point of the two lines will be automatically calculated. If there is no intersection between the two lines, an extension of the two lines will be automatically made to find the intersection point.

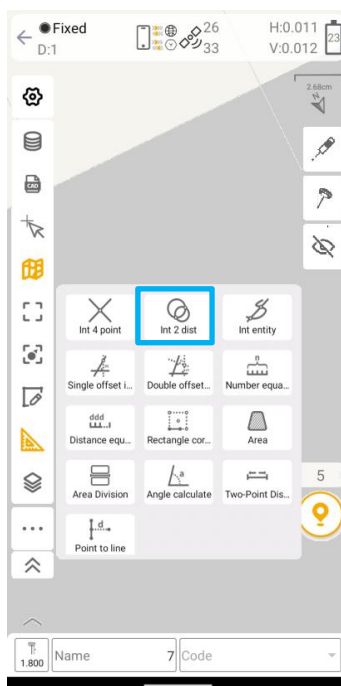


4) After obtaining the intersection point, set the point name. After clicking Completed, the point will be saved to Element and displayed on the map.



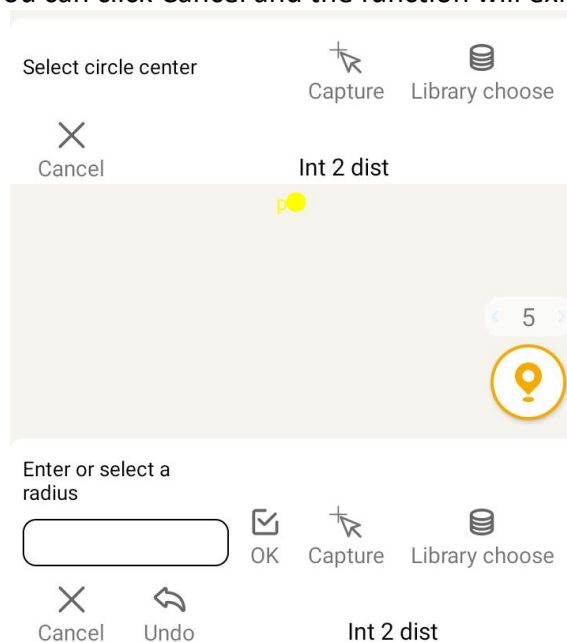
7.3.2 Int 2 dist

Select the center and radius to draw two circles and calculate the intersection point of the two circles. Click Completed to select the intersection point and save it to Element.

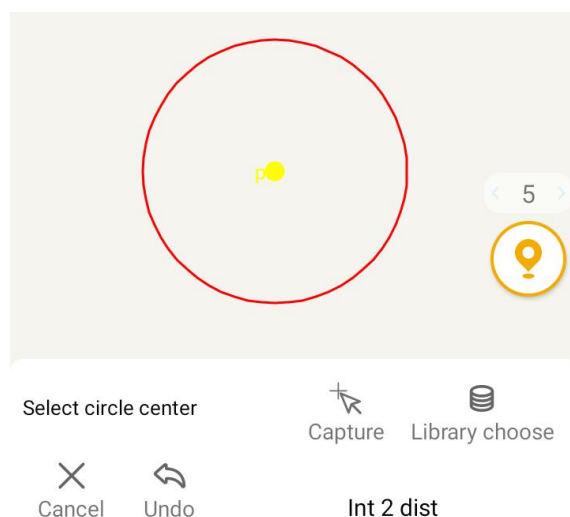


The steps are as follows:

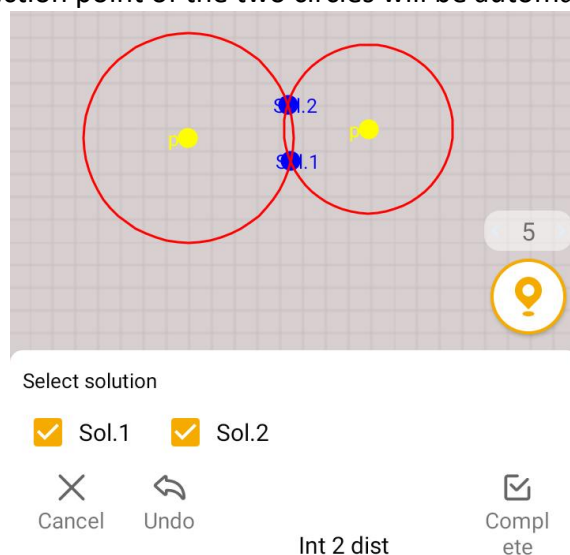
1) Select circle center by clicking on the map, selecting points with the Capture tool, or selecting points from Element. The selected point will be displayed in yellow and will not be saved to Element. You can click Cancel and the function will exit.



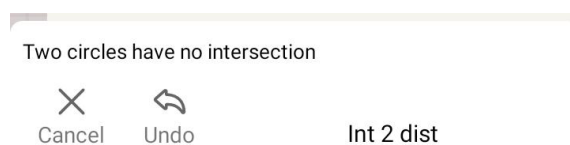
2) After completing the first point selection, enter a radius or select the second point by clicking on the map, selecting points with the Capture tool, or selecting points from Element. After completing the radius selection, a circle will be automatically formed with the first point.



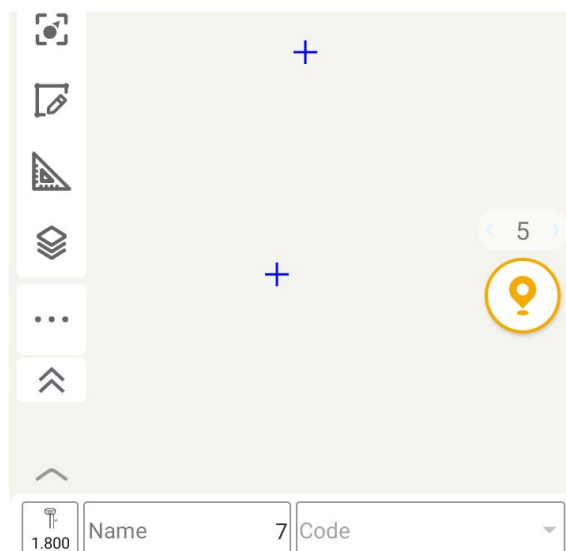
3) The selection method for the second circle is the same as above. After 2 circles completed, the intersection point of the two circles will be automatically calculated.



If there is no intersection between the two circles, the bottom prompts "Two circles have no intersection".

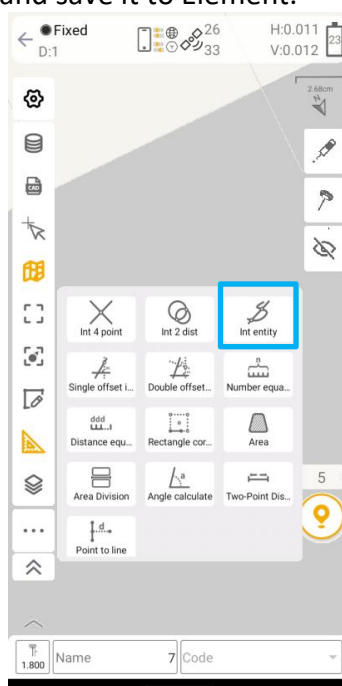


4) After obtaining the intersection point, select the intersection point which you want to save. After clicking Completed, the point will be saved to Element and displayed on the map.



7.3.3 Int entity

Select 2 objects and calculate the intersection point of these two objects. Click Completed to select the intersection point and save it to Element.



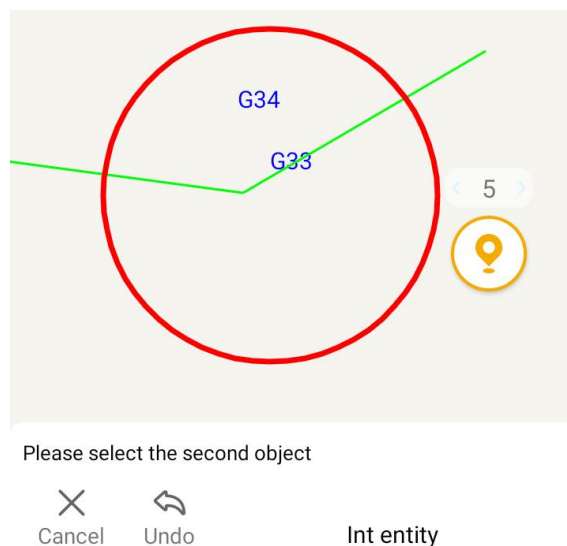
The steps are as follows:

1) Select the first object by clicking on the map. You can click Cancel and the function will exit.

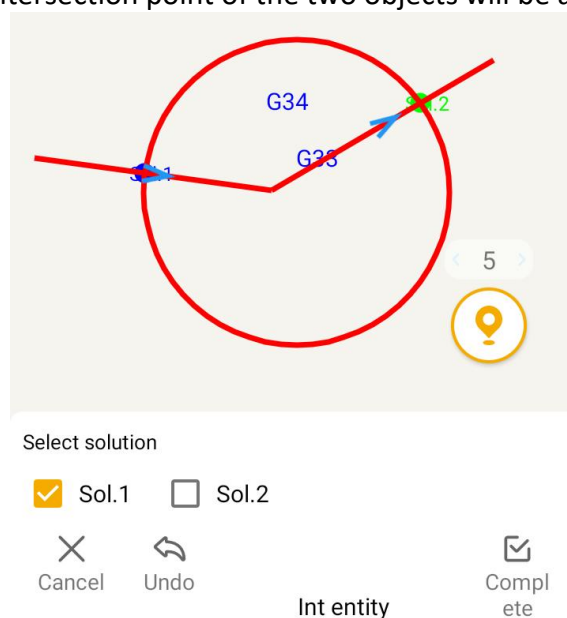
Please select the first object

✕
Cancel

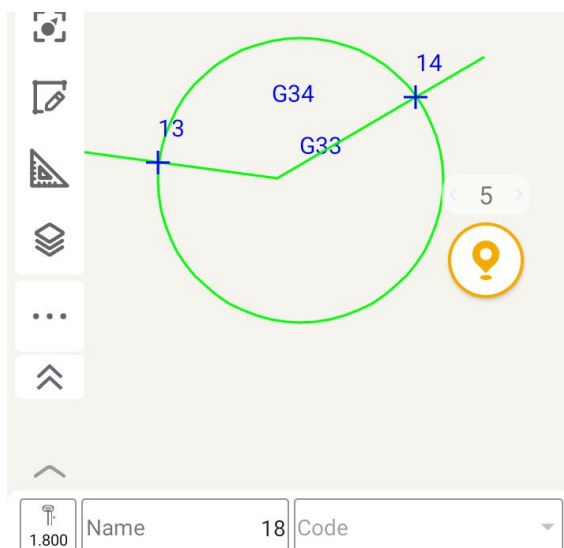
Int entity



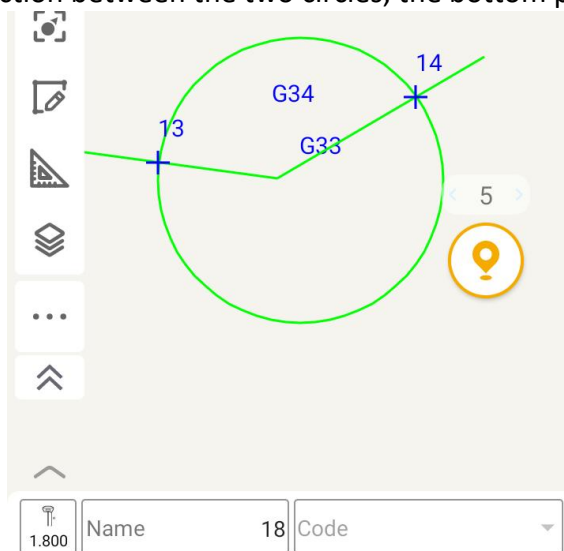
2) After the first object selection, select the second object by clicking on the map. After 2 objects selected, the intersection point of the two objects will be automatically calculated.



3) After obtaining the intersection point, select the intersection point which you want to save. After clicking Completed, the point will be saved to Element and displayed on the map.

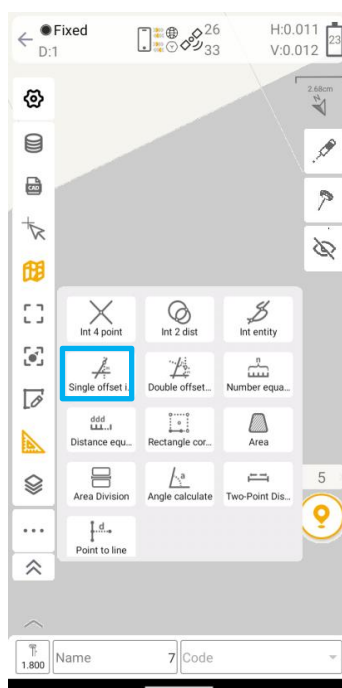


4) If there is no intersection between the two circles, the bottom prompts "No solution".



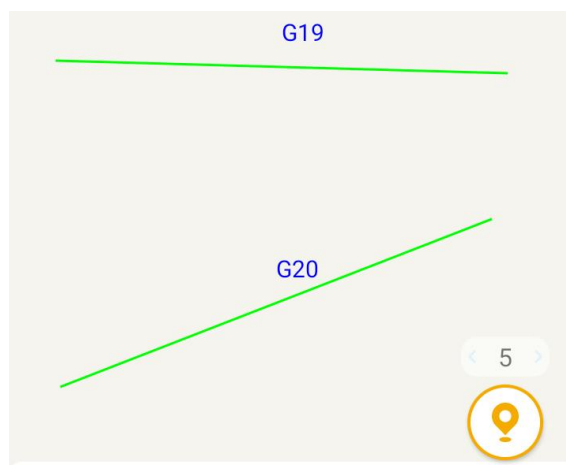
7.3.4 Single offset intersection

Calculate the intersection point of the current line with another line after offset. (i.e. a point on a line that is a certain distance from another line)

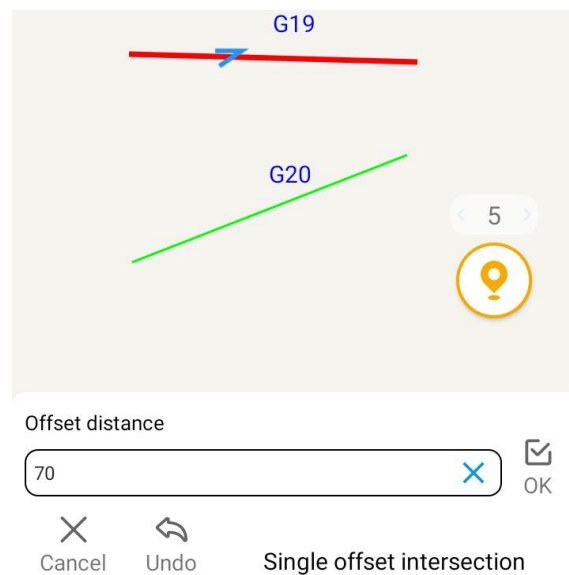


The steps are as follows:

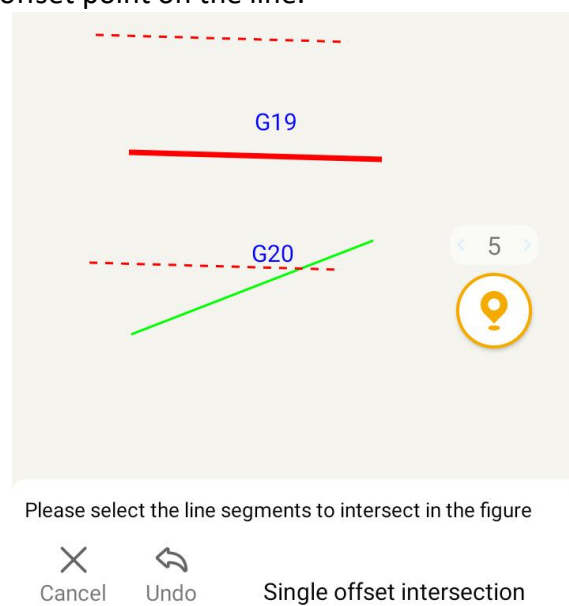
1) Select the line segment to be offset by clicking on the map. You can click Cancel and the function will exit.



2) After selecting, enter the offset distance of this line. This distance is a certain distance that a point on a line that is from another line.



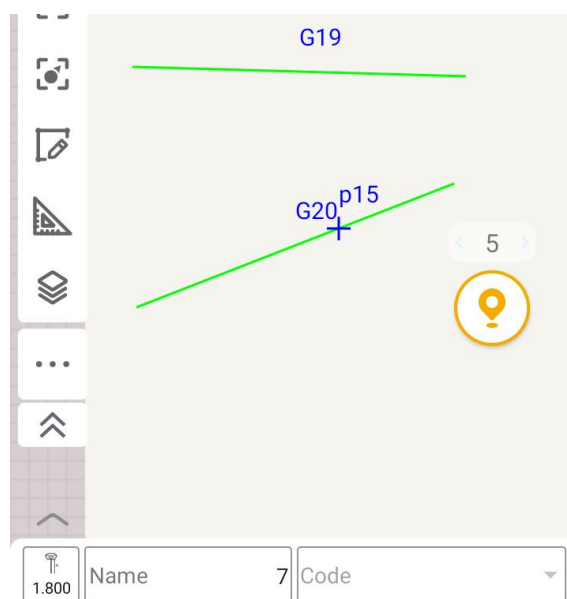
3)After enter an offset value, this line will form two offset lines. But the offset lines are not saved. You can clearly see whether the offset point intersects with other lines, thereby obtaining the offset point on the line.



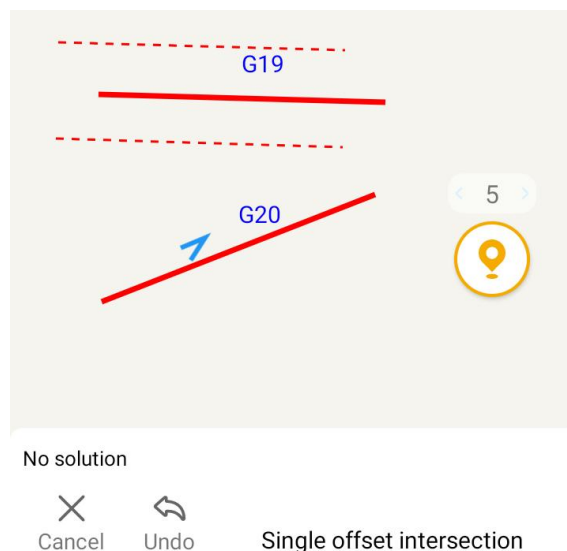
3) Select another line to intersect.



4) After obtaining the intersection point, select the intersection point which you want to save. After clicking Completed, the point will be saved to Element and displayed on the map.

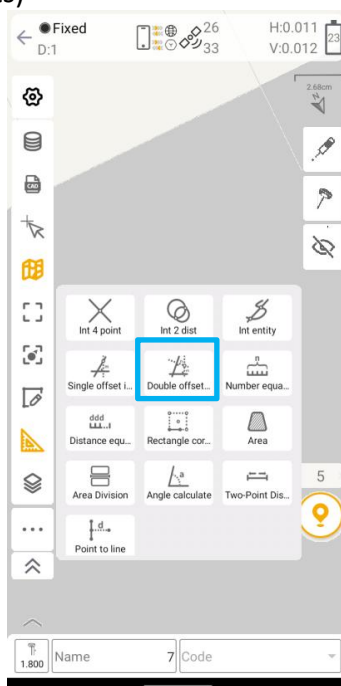


5) If there is no intersection, the bottom prompts "No intersection".



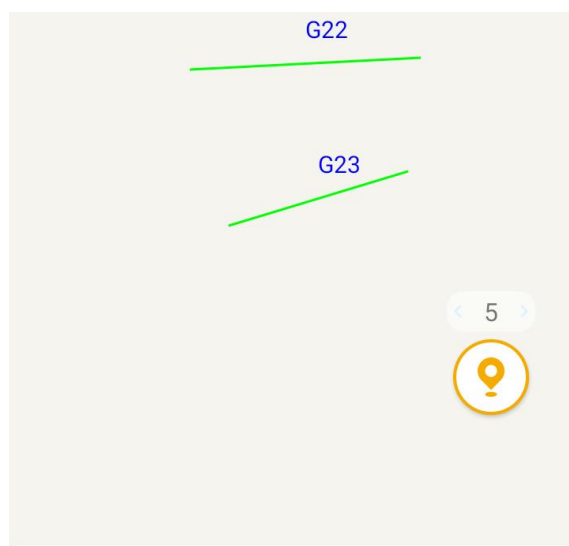
7.3.5 Double offset intersection

Select two lines in turn, enter the offset distance, and generate lines on the left and right sides of the line segment that are translated to the line ends. The intersection of the two parallel lines is obtained and can be saved to the Element. (i.e. Points that are a certain distance from two line segments)



The steps are as follows:

- 1) Select the line segment to be offset by clicking on the map. You can click Cancel and the function will exit.

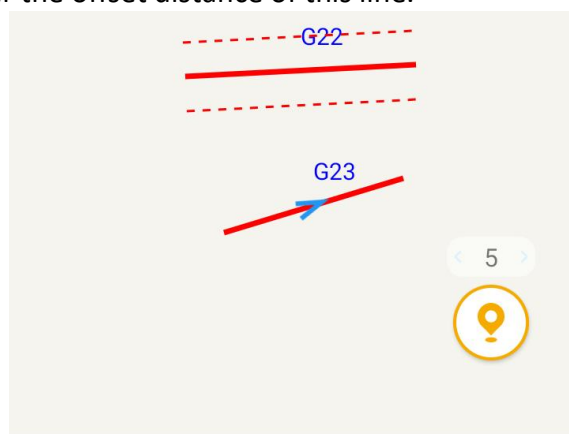


Please select the line segment to be offset in the figure

✕
Cancel

Double offset intersection

2) After selecting, enter the offset distance of this line.



Offset distance

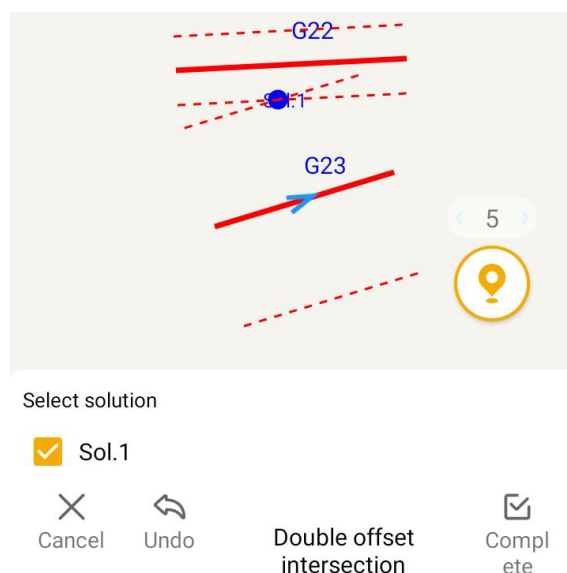
✓
OK

✕
Cancel

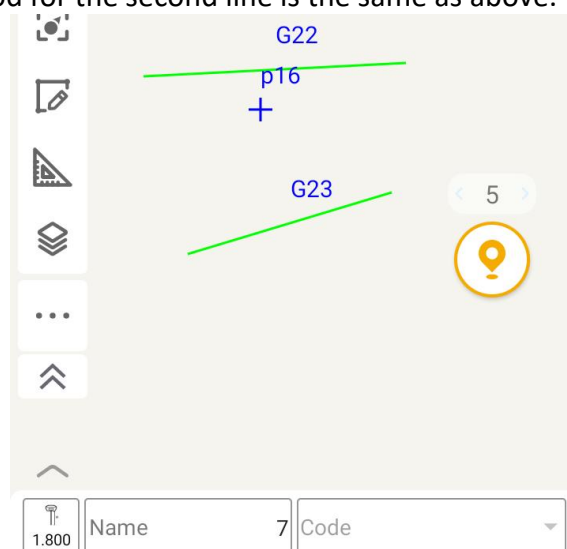
↶
Undo

Double offset intersection

3) After enter an offset value, this line will form two offset lines. But the offset lines are not saved.

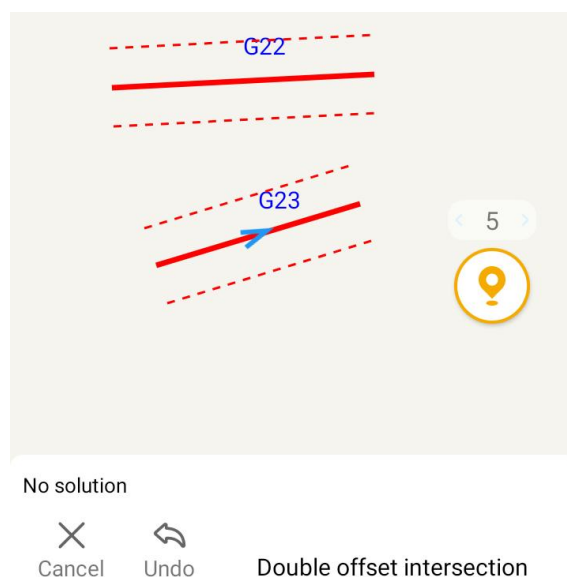


4) The selection method for the second line is the same as above.



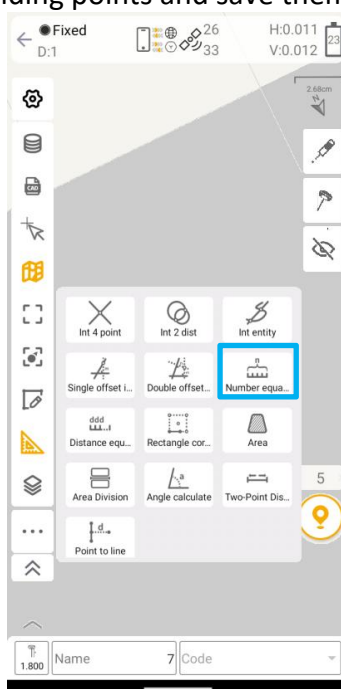
5) After obtaining the intersection point, select the intersection point which you want to save. After clicking Completed, the point will be saved to Element and displayed on the map.

6) If there is no intersection, the bottom prompts "No intersection".



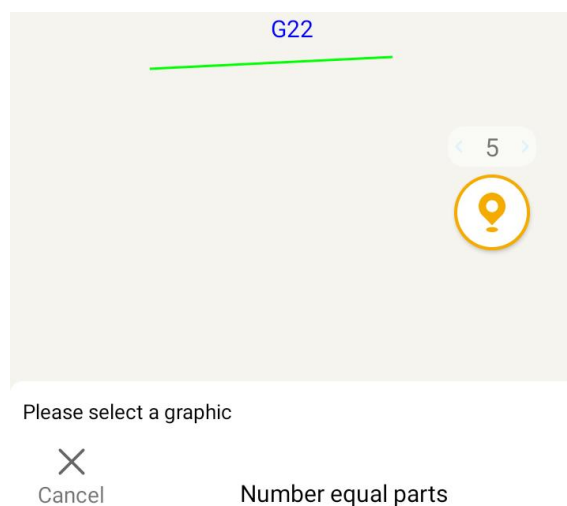
7.3.6 Number equal parts

Select the graphic, enter the number of divisions required, divide the selected graphic into equal parts, generate corresponding points and save them to Element.

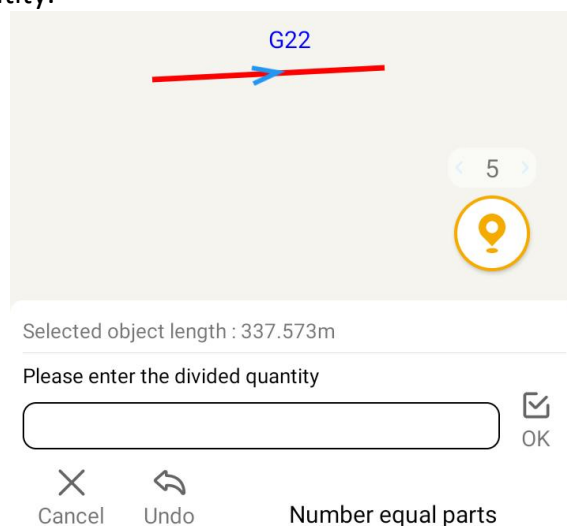


The steps are as follows:

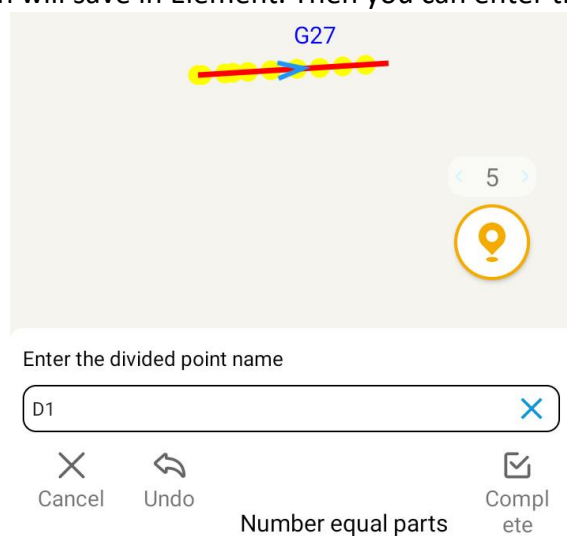
- 1) Select a graphic by clicking on the map. You can click Cancel and the function will exit.



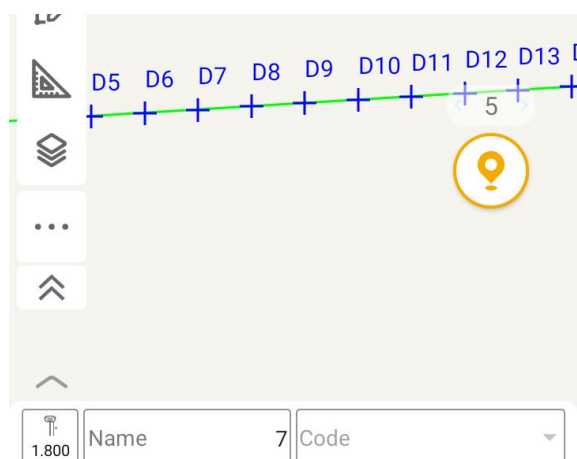
2) After selecting a graphic, the length of the selected graphic is displayed at the bottom. Enter the divided quantity.



3) After entering the divided quantity, you can see marks on the graphic. These marks are the divided point which will save in Element. Then you can enter the divided point name.

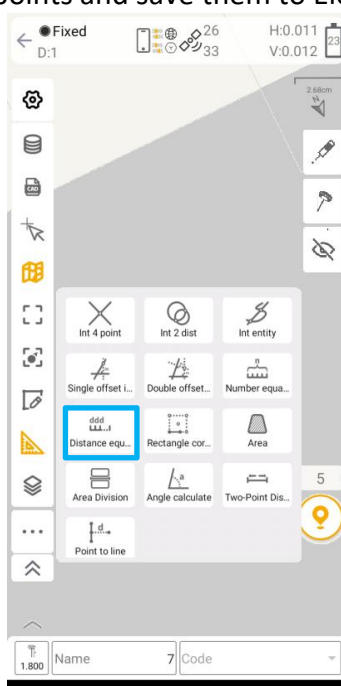


4) After clicking Completed, the point will be saved to Element and displayed on the map.



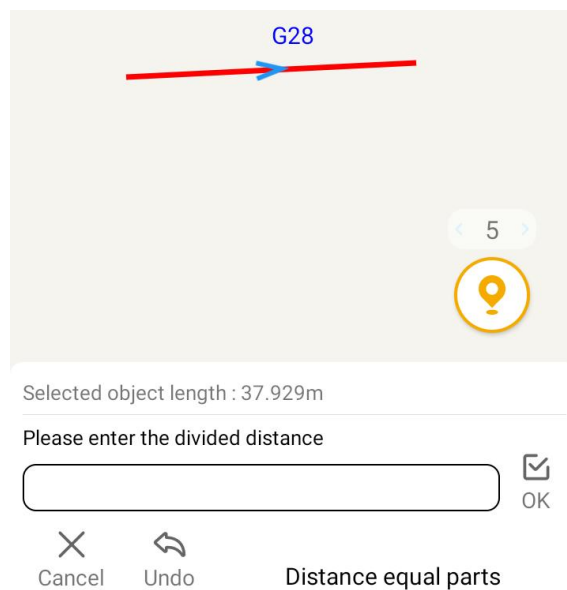
7.3.7 Distance equal parts

Select the graphic, enter the distance to be divided, divide the selected graphic into equal parts, generate corresponding points and save them to Element.

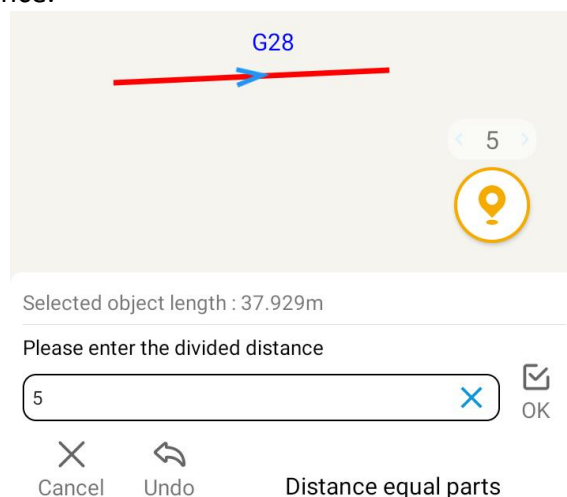


The steps are as follows:

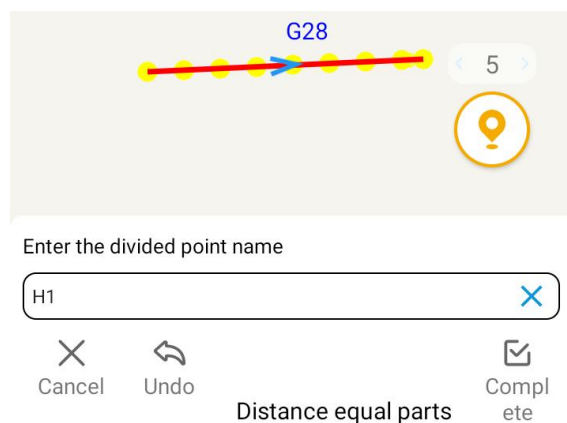
- 1) Select a graphic by clicking on the map. You can click Cancel and the function will exit.



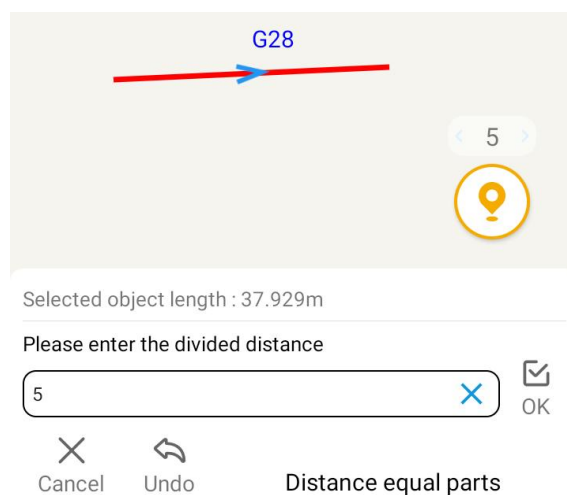
2) After selecting a graphic, the length of the selected graphic is displayed at the bottom. Enter the divided distance.



3) After entering the divided distance, you can see marks on the graphic. These marks are the divided point which will save in Element. Then you can enter the divided point name.

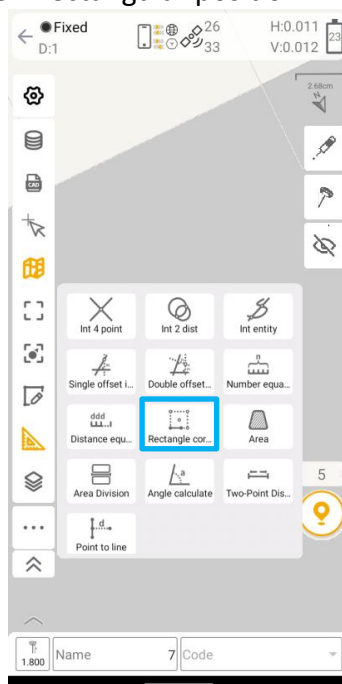


4) After clicking Completed, the point will be saved to Element and displayed on the map.



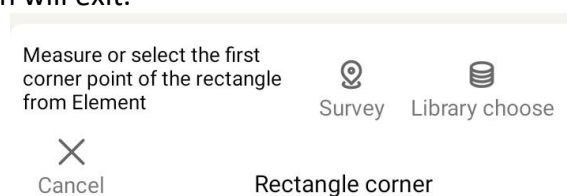
7.3.8 Rectangle corner

Select the element, generate new rectangular position.

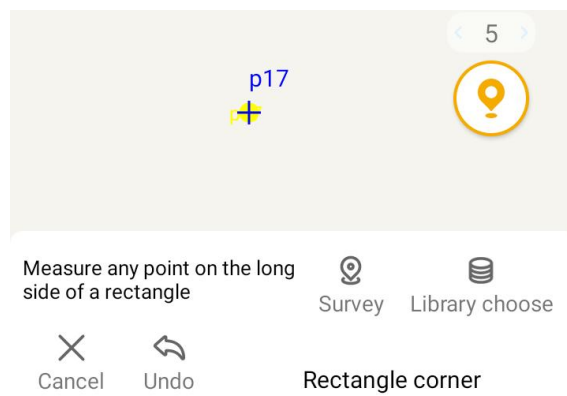


The steps are as follows:

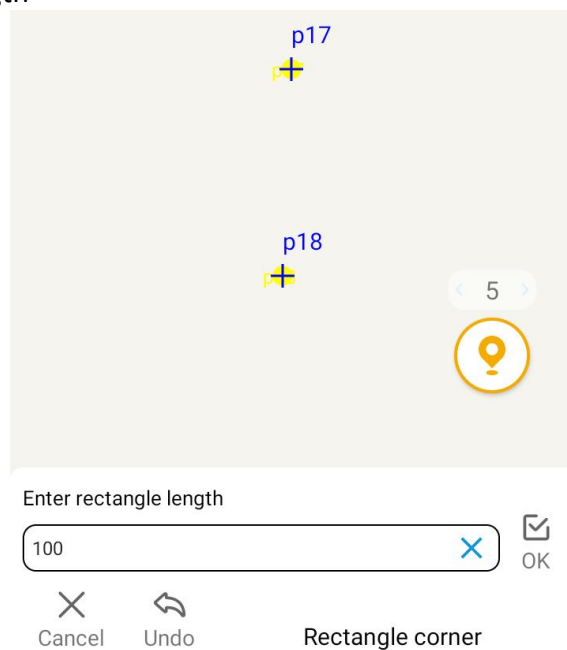
1) Measure or select the first corner point of the rectangle from Element. You can click Cancel and the function will exit.



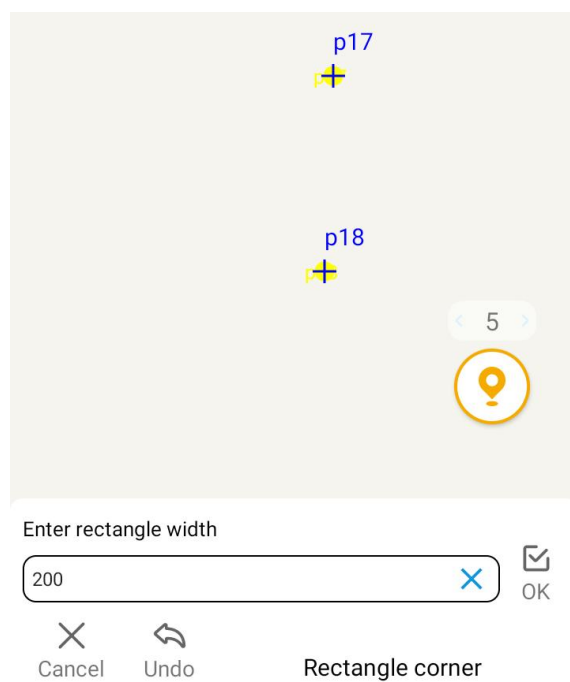
2) Measure any point on the long side of a rectangle



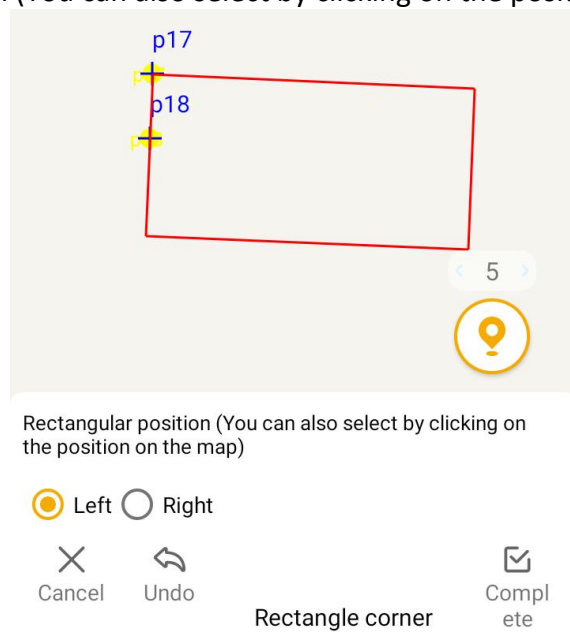
3) Enter rectangle length



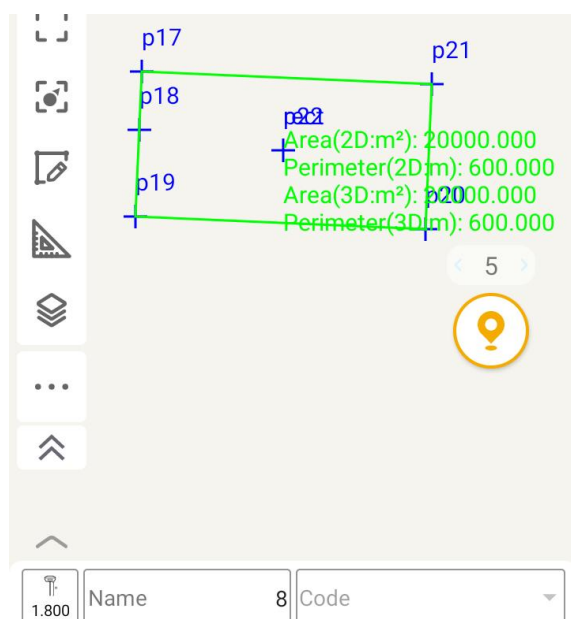
4) Enter rectangle width.



5) Rectangular position (You can also select by clicking on the position on the map).

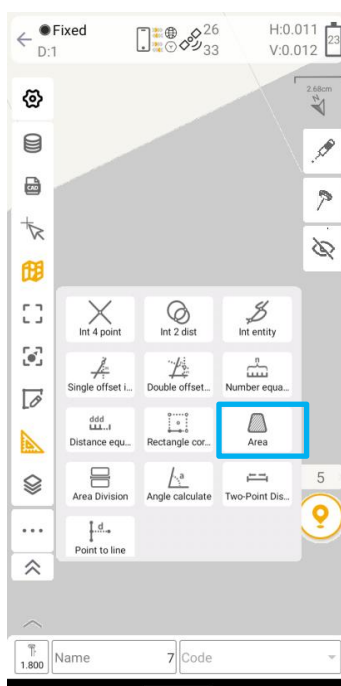


6) After clicking Completed, you can get the results.



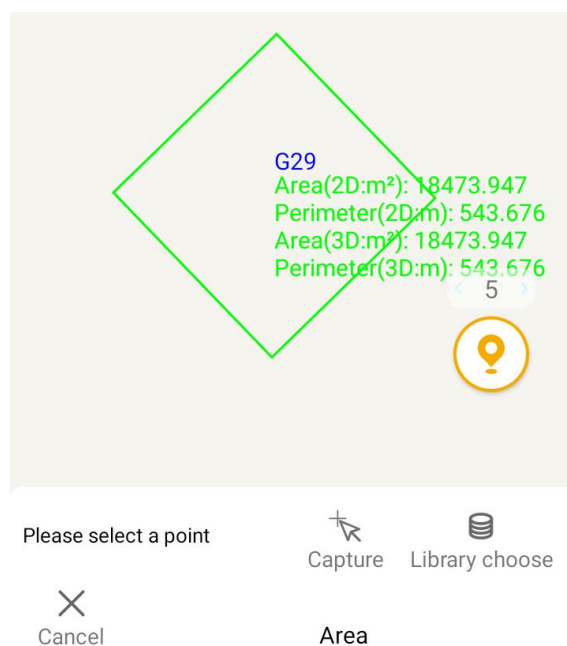
7.3.9 Area

Select the nodes that make up the graph, automatically calculate the area of the graph, and label the value.

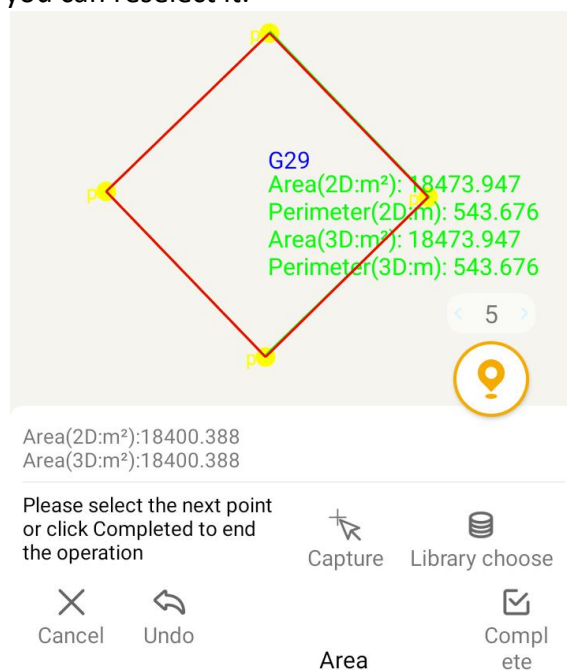


The steps are as follows:

- 1) Select points by clicking on the map, selecting points with the Capture tool, or selecting points from Element. These points will make up a graph. You can click Cancel and the function will exit.



2) After all points selection, the 2D area and 3D area will be displayed. Click Undo to uncheck the point and you can reselect it.



3) After Clicking Completed, you can enter Surface edit interface to view or modify. Click Cancel to exit the function. Click Undo to uncheck the line and you can reselect it.

← Surface edit
⋮ More

Name

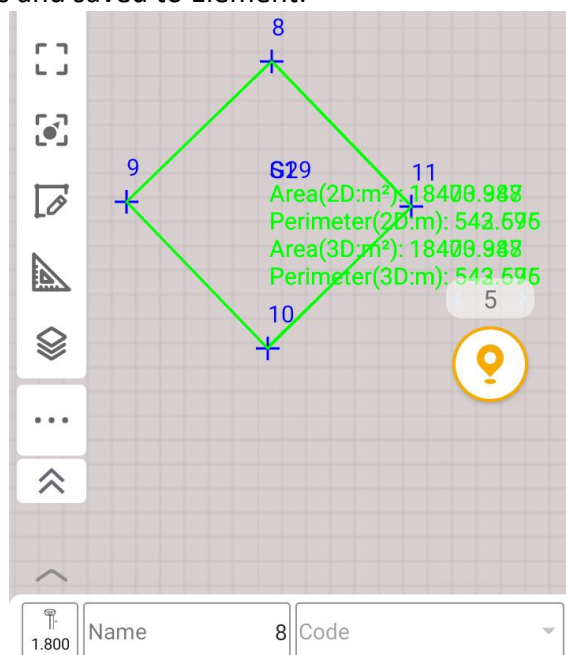
Area(2D:m²): 18400.388 Area(3D:m²): 18400.

Perimeter(2D:m): 542.595 Perimeter(3D:m): 54

Name	N(m)	E(m)
8	3469060.053	622951.708
9	3468964.957	622855.432
10	3468868.109	622951.486
11	3468964.262	623047.158

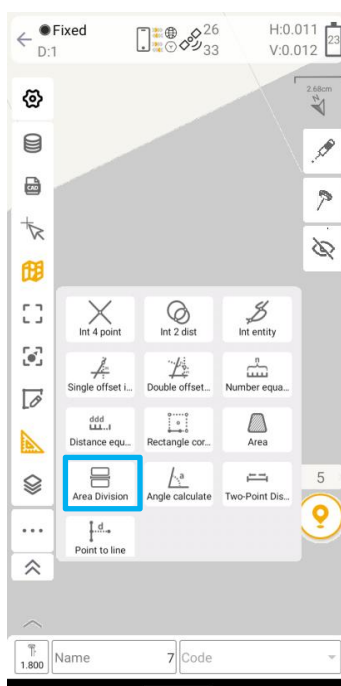
OK

4) After clicking OK, the area annotation is displayed in the center of the interface, and the 2D/3D perimeter and area of the graph are displayed. The graph selection points are generated at the nodes and saved to Element.



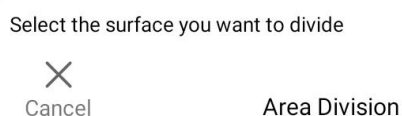
7.3.10 Area Division

Divide and save the intersection points according to the input area.

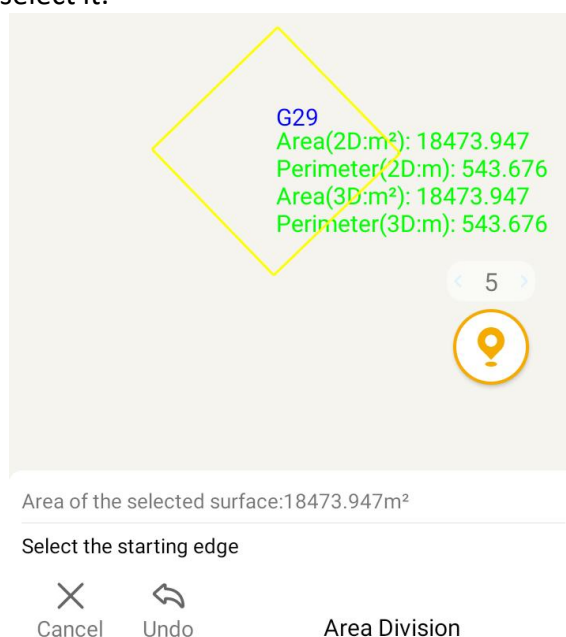


The steps are as follows:

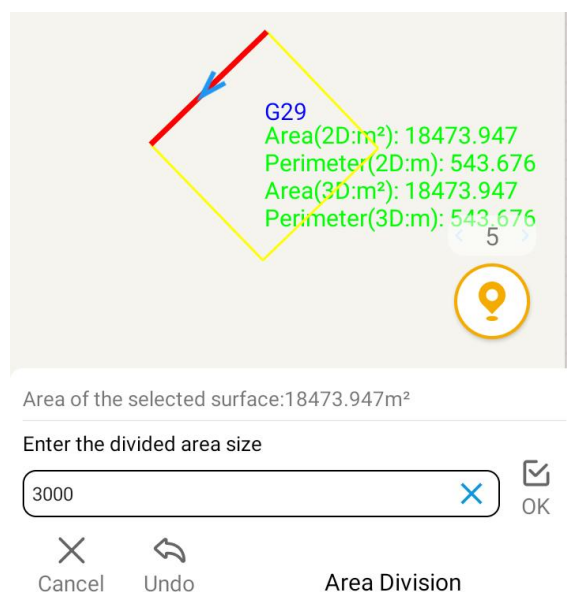
- 1) Select the surface you want to divide. You can click Cancel and the function will exit.



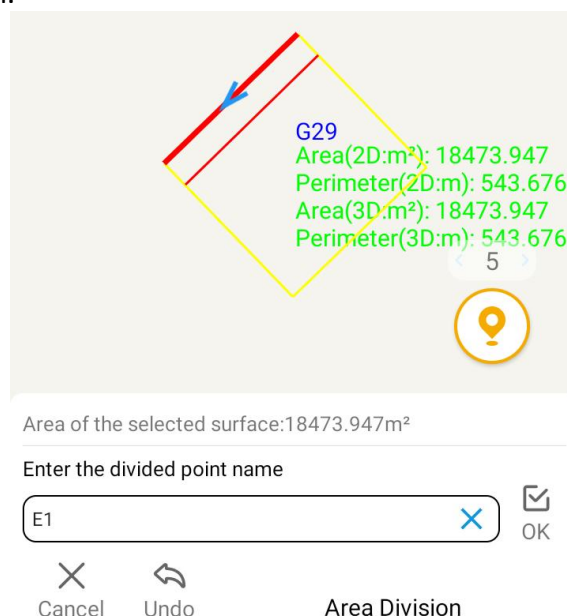
- 2) The bottom prompts "Select the starting edge" and the area of the currently selected surface is displayed above. Click Cancel to exit the function. Click Undo to uncheck the surface and you can reselect it.



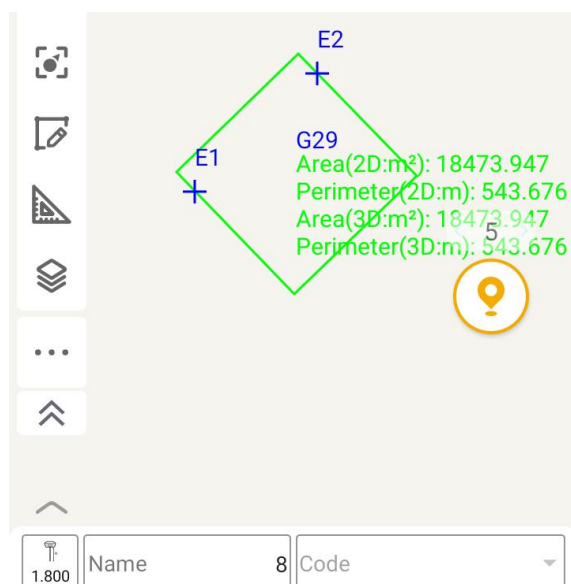
- 3) Select the starting edge which you want to divide this surface and enter the divided area size.



4) After clicking OK, the area from the starting edge to the generated dividing line is the area set by the division.

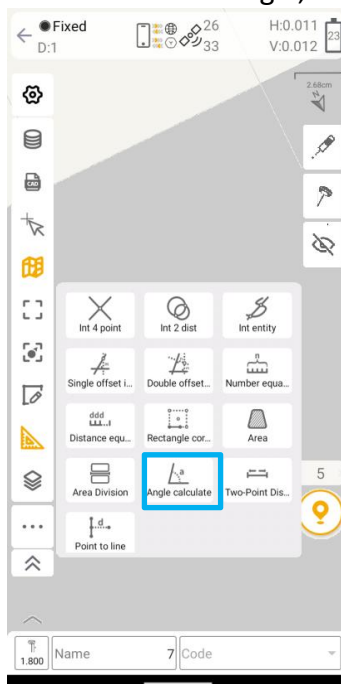


5) Enter the division point name. After clicking OK, the area division is completed, the divided points are generated at the intersection of the generated dividing line and the original selected surface, and the points are saved in Element.



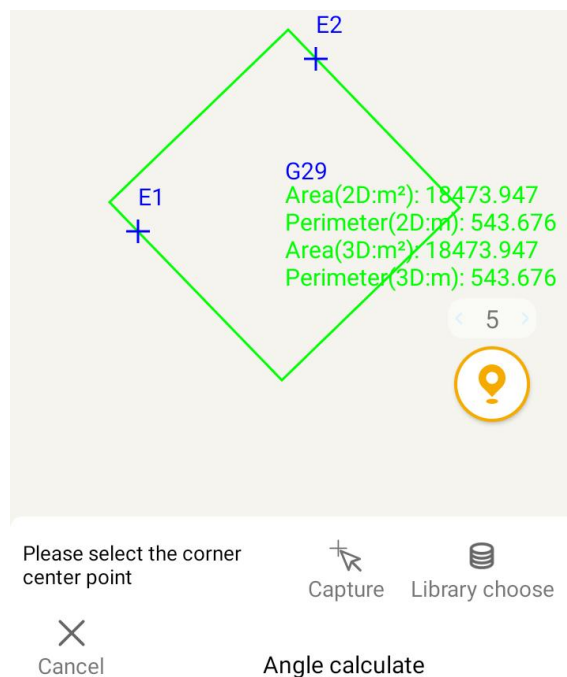
7.3.11 Angle calculate

After selecting three points to form the included angle, the current angle is displayed.

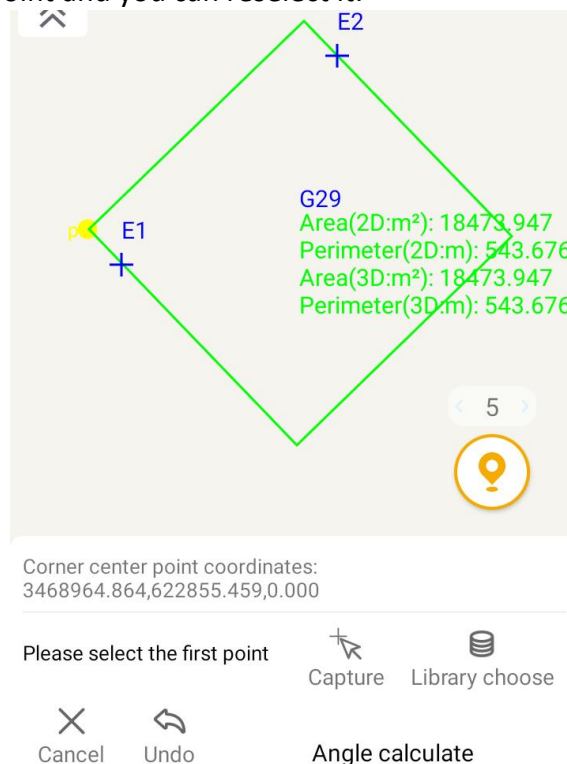


The steps are as follows:

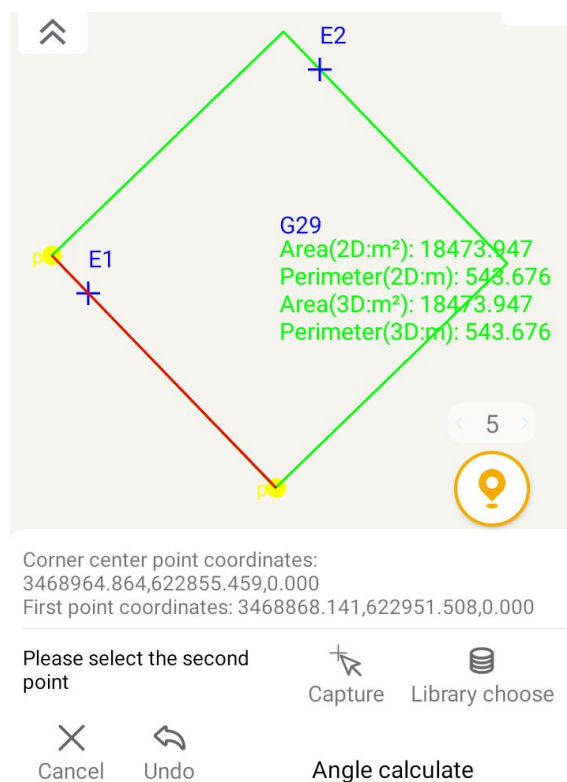
- 1) Select the corner center by clicking on the map, selecting points with the Capture tool, or selecting points from Element. You can click Cancel and the function will exit.



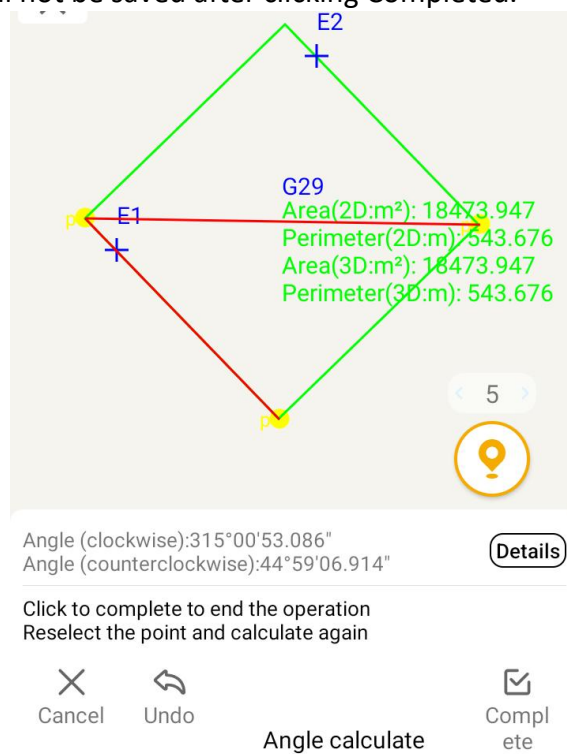
2) After the center point selection, the coordinates of the selected point will be displayed. The bottom prompts "Please enter the first point". Click Cancel to exit the function. Click Undo to uncheck the point and you can reselect it.



3) After the first point selection, the coordinates of the selected point will be displayed. The center point will be connected to the first point. The bottom prompts "Please enter the second point". Click Cancel to exit the function. Click Undo to uncheck the point and you can reselect it.

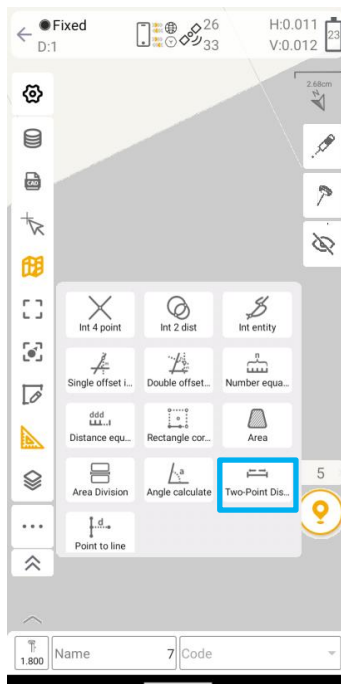


4) After the second point selection, the center point will be connected to the second point. The clockwise and counterclockwise angles of the current included angle will be displayed. You can click Details to enter the angle calculate interface to view or modify. The selected points and graphics will not be saved after clicking Completed.



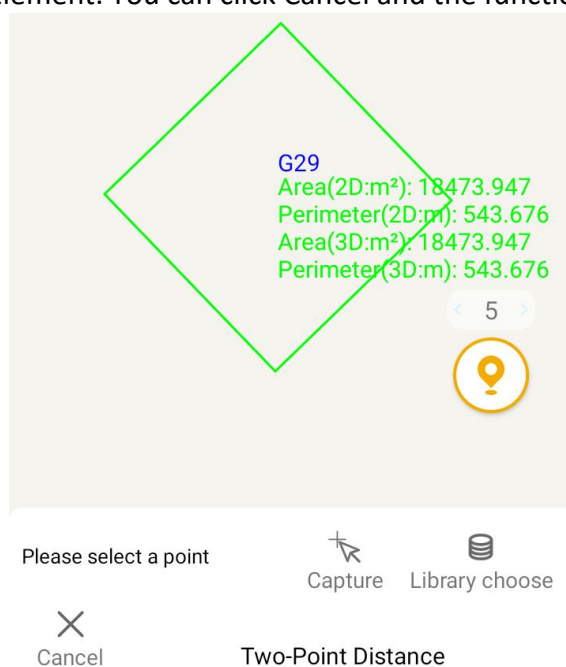
7.3.12 Two-Point Distance

Select two points and automatically calculate the horizontal distance (2D) and slope distance (3D).

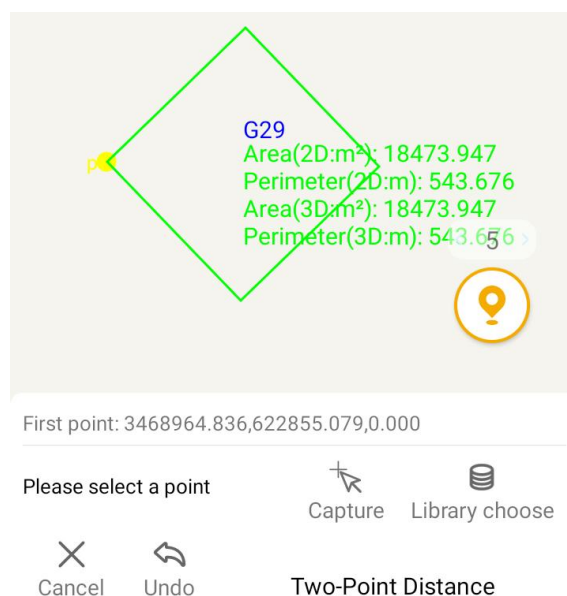


The steps are as follows:

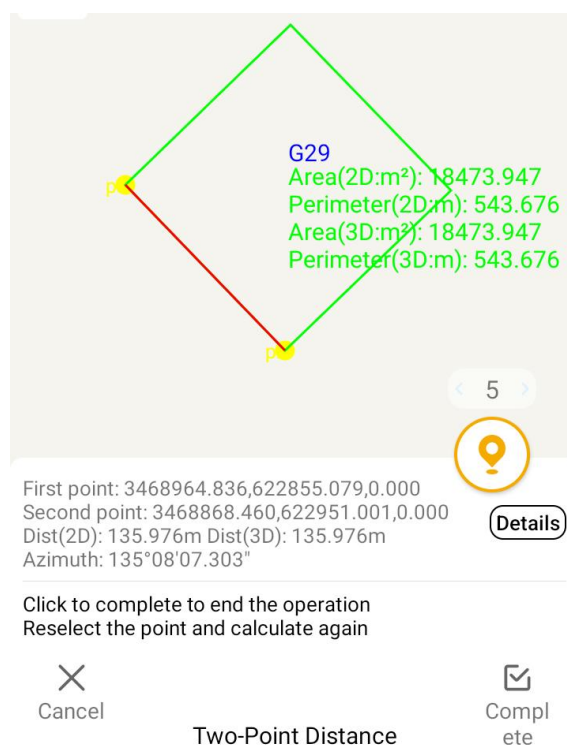
1) Select a point by clicking on the map, selecting points with the Capture tool, or selecting points from Element. You can click Cancel and the function will exit.



2) After the first point selection, the coordinates of the selected point will be displayed. The bottom prompts "Please select a point". Click Cancel to exit the function. Click Undo to uncheck the point and you can reselect it.

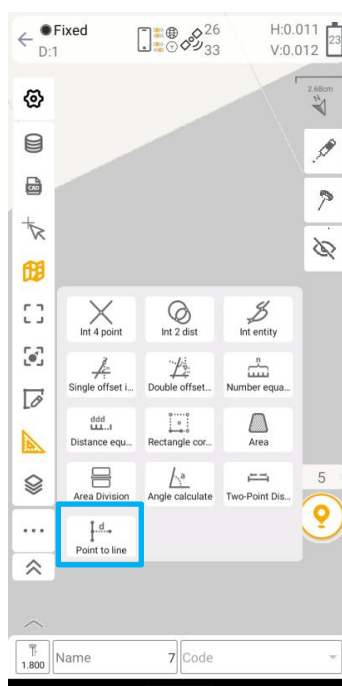


3) After the second point selection, the first point will be connected to the second point. The 2D distance and 3D distance will be displayed. You can click Details to enter Two Point interface to view or modify. The selected points and graphics will not be saved after clicking Completed.



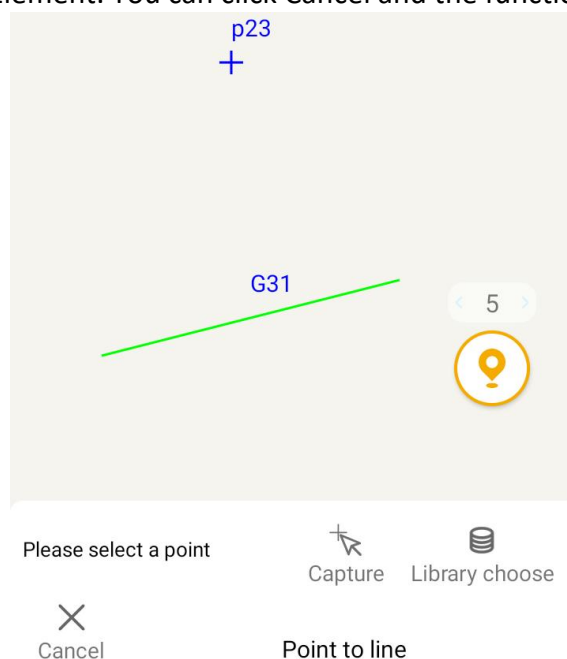
7.3.13 Point to Line

Select a point and a line and calculate the vertical distance from the point to the line.

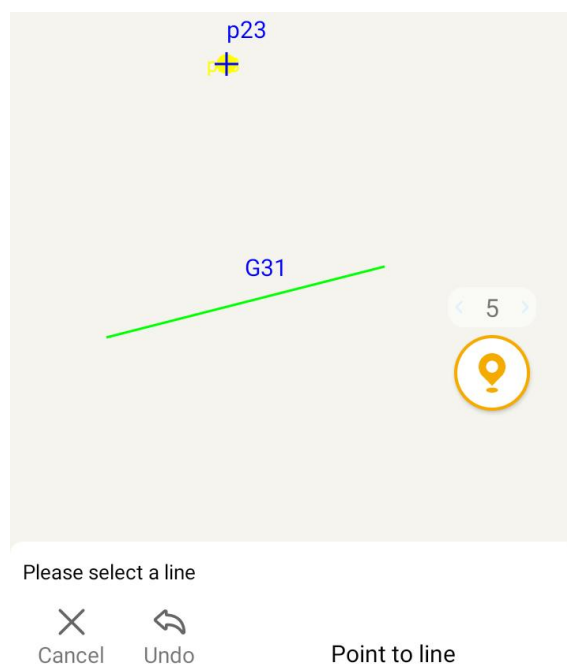


The steps are as follows:

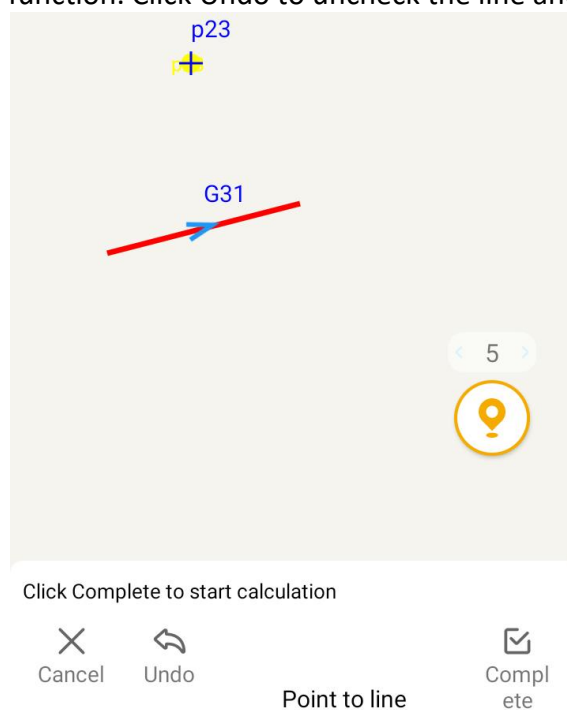
1) Select a point by clicking on the map, selecting points with the Capture tool, or selecting points from Element. You can click Cancel and the function will exit.



2) After the first point selection, the bottom prompts "Please select a line". Click Cancel to exit the function. Click Undo to uncheck the point and you can reselect it.



3) After the line selection, the bottom prompts "Click Completed to start calculation". Click Cancel to exit the function. Click Undo to uncheck the line and you can reselect it.



4) After clicking Completed, you can enter Point to line interface to view or modify. Click Compute you can save this vertical point to Element.

Point to line

Known: Point P, A, B
Compute: Distance(d) from point P to line AB

Element Survey Map

P

N

E

Z

A

N

E

Z

Clear Compute

Prompt

Result:
d:144.707 m
Distance from vertical point to A:114.070 m
Distance from vertical point to B:62.978 m

Vertical point coordinate:
N:3467962.781m
E:622891.314m
Z:0.000m

Do I need to save this vertical point to Element?

Cancel Confirm

622781.116 m

0.000 m

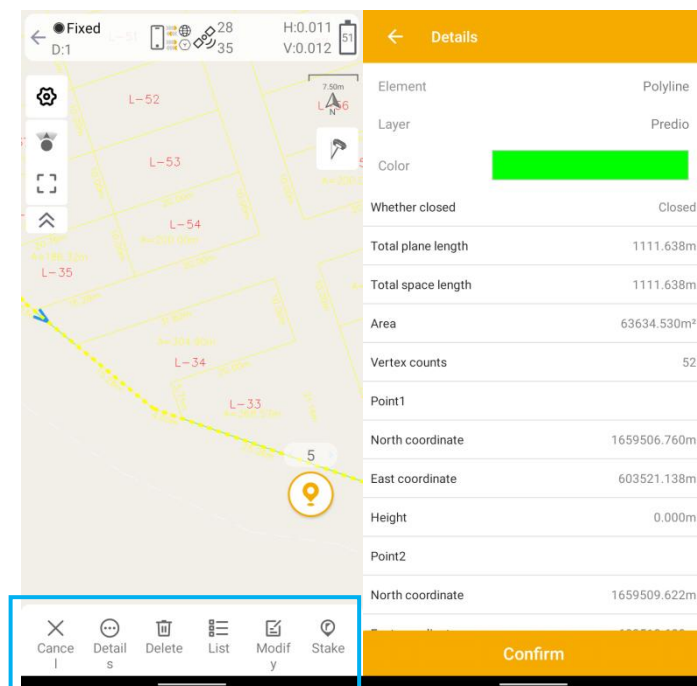
Clear Compute

7.4 CAD Stake

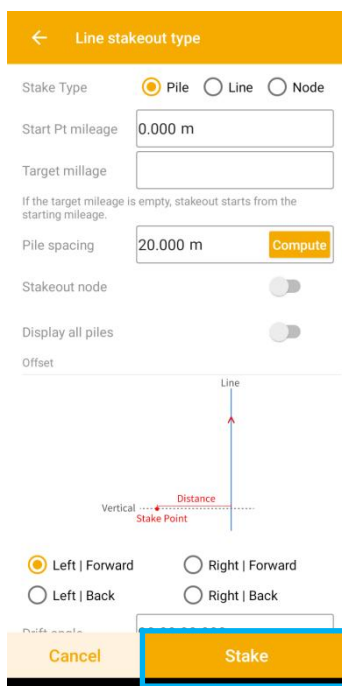
When you choose one point or line of the CAD file, you can do the followings:

Delete: Delete this point or line, then click Save to save as a new file. When you exit the Stake CAD, the delete operation will not be saved to this current file.

Detail: Check more information of the line what you selected



Stake: Enable pile-by-pile co-ordinate sampling, and you can set the key nodes, deviation, calculation method and interval in the expanded setting items.



Release key node: When selecting 'Specify distance' or 'Equal segment', an option 'Release key node' will be added to the calculation, which is enabled by default. When this function is on, the nodes will be added to the release, and the piles will be added to the nodes, just like the current one. If it is off, the key nodes of the folded line will be blocked, and only the calculated pile numbers will be kept.

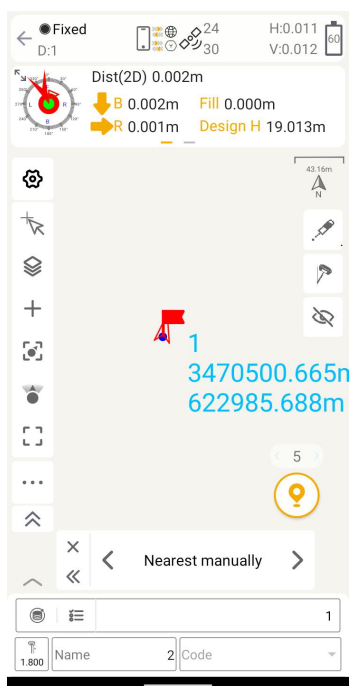
Setting the offset: when the offset value is set to a positive value, pan the line to the right to release the sample, and when the offset value is set to a negative value, pan the line to the left to release the sample.

Calculations can be made for specified distance (i.e., the distance between specified line segments), line segment splitting (splitting line segments into a set number of segments), and key points (i.e., clicking on key points in the sampled line segment, such as the 'start point', 'end point', etc.).

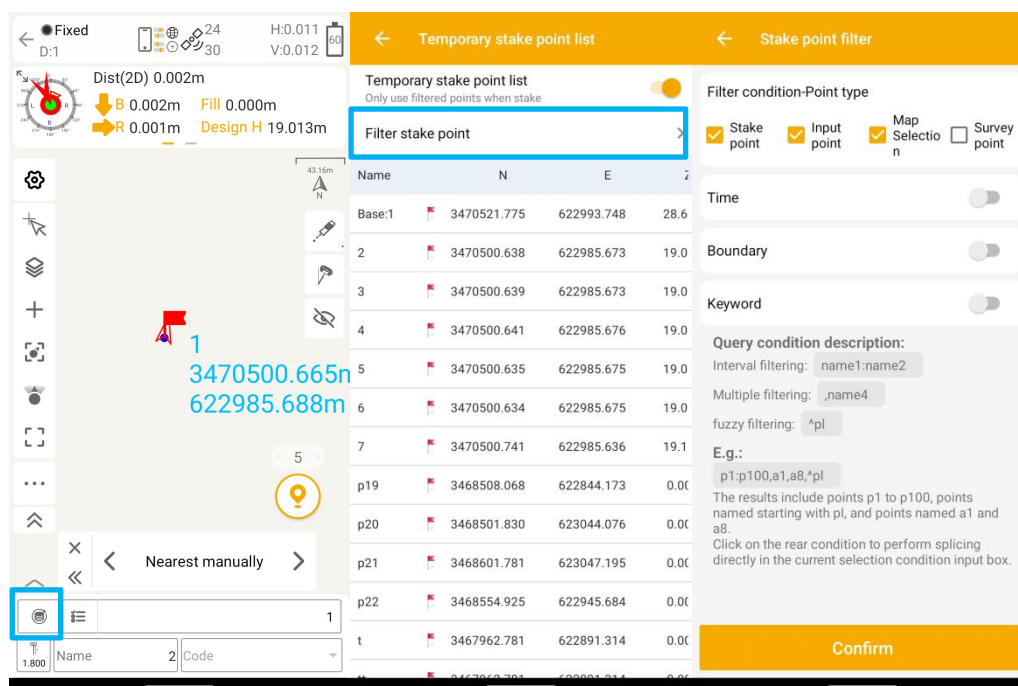
The interval defaults to 20

Nearest point mode:

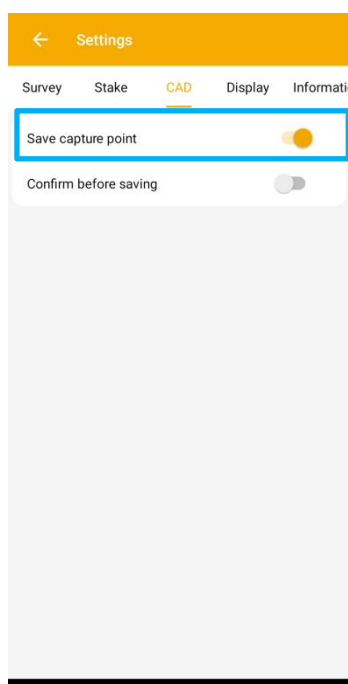
Manual Nearest: Click Manual Nearest once to calculate the nearest unplaced point to the current position.



Temporary release point library: Click to enter the temporary release point library, the default temporary release point library is closed, after opening the lower part of the display point library in all the points, you can filter the release point.



7.5 CAD Setting



Save capture point: It is turned off by default. After turning it on, the CAD interface will save the captured points to Element. After turning it off, the captured points only support stake and will not be saved to Element.

7.6 CAD Align

Align: This is used to calibrate the dxf file coordinate, you need two pairs of the coordinate, we usually use two sets of points on the diagonal.

Firstly, specify a source point on the graph, use the graph selection function to select it, enter the correct coordinates (or click on the text of the coordinates on the graph), and then use the same method to determine the coordinates of the second source point, which will appear as shown in the figure. The prompts indicate that the correction is correct, and then click to confirm it.

The figure shows four sequential screenshots of the 'CAD Align' interface:

- Screenshot 1:** Shows the 'CAD Align' screen with a warning message: 'Before correction, please confirm that the unit is consistent with the drawing unit in [CAD]-[Menu]-[Unit]'. It displays 'File name: ARBOLEDA 4 (1).dwg'. Below, 'Point pair 1' and 'Point pair 2' are listed with their respective North (N) and East (E) coordinates.
- Screenshot 2:** Similar to the first, but with the 'Map Selection' dropdown set to 'Map' and the 'Known point' dropdown set to 'Element'.
- Screenshot 3:** Shows the 'Compute' button at the bottom, indicating the calculation has been performed.
- Screenshot 4:** A 'Prompt' dialog box appears, asking 'Align calculation is correct, confirm to use?'. It has 'Cancel' and 'OK' buttons.

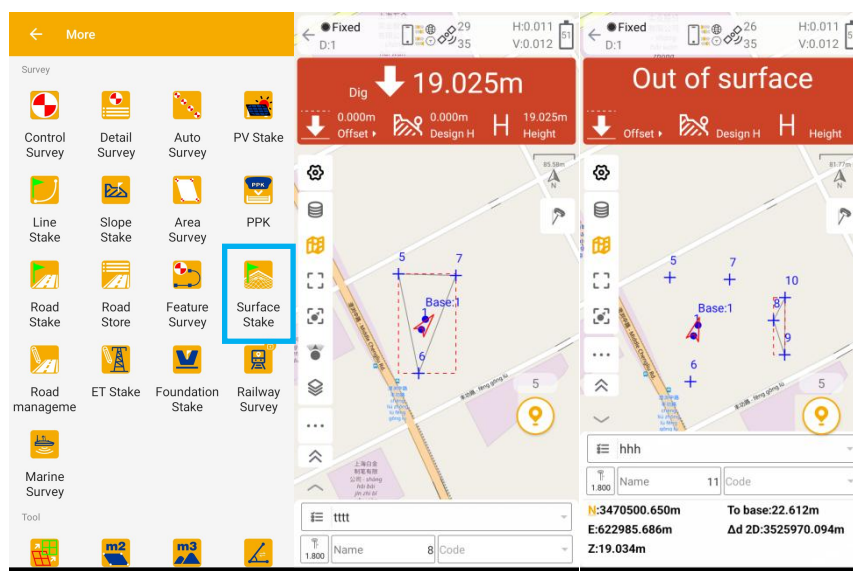
8. Stake Surface

You can stake the elevation using the design surface, then you can choose the fill or excavate according the stake result.

Go to **Survey->Surface Stake**, if you don't open a surface before, then it will jump to the Surface interface;

If the current position is not within the range of the design surface, it will show **“Out of Surface!”** ; if the current position is within the range of the design surface, it will show the fill or excavation value;

There are two methods to stake the elevation, you can use the elevation from the **Design surface**, or you can use the **Design elevation** to get the fill or excavation value;

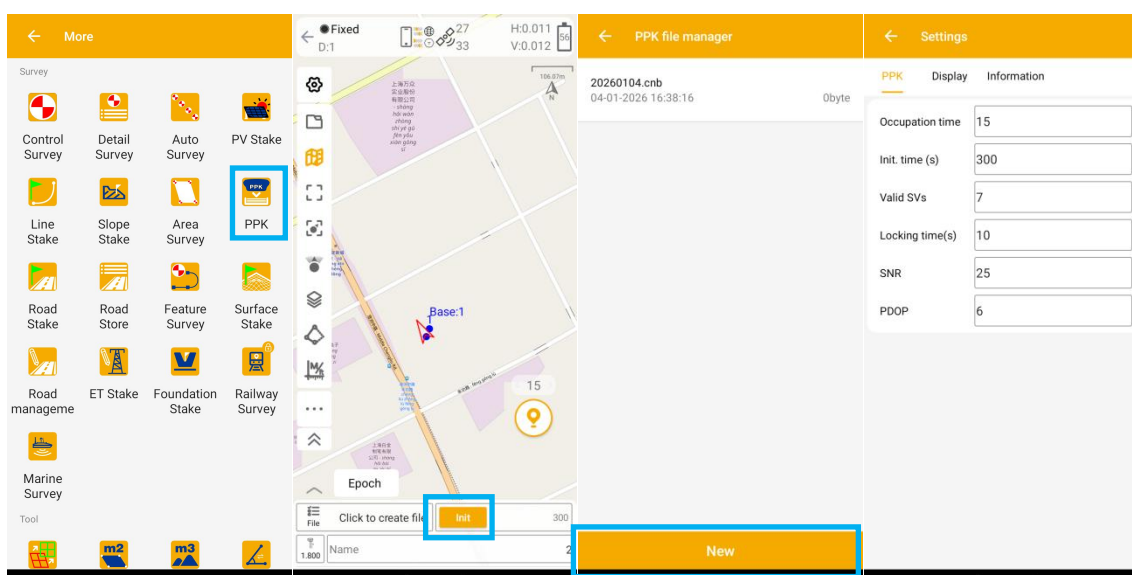


9. PPK

PPK (post processing kinetic) is the unique function of Mfield, which is used for post-processing dynamic measurements.

It also needs two receivers to work together, one work as Base to record static data, and M8 work as Rover as shown below.

- 1) Click PPK in survey interface -> choose or create a PPK file.
- 2) Go to settings, configure PPK settings based on your requirements.
- 3) To get stable epoch, click **Init** to initialize -> to start PPK survey.

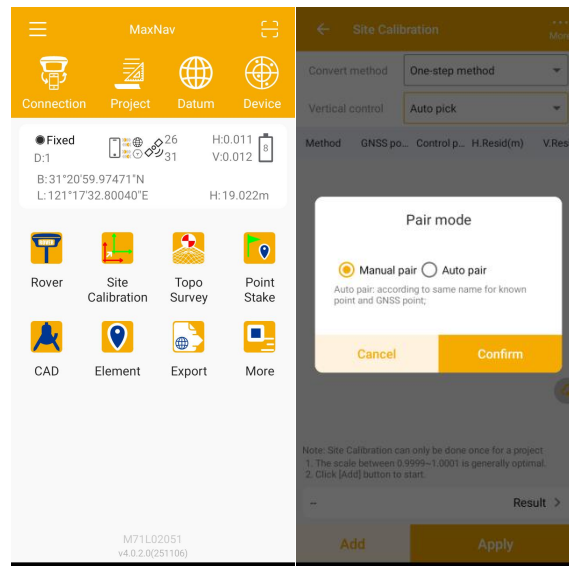


10.Site Calibration/Grid Shift

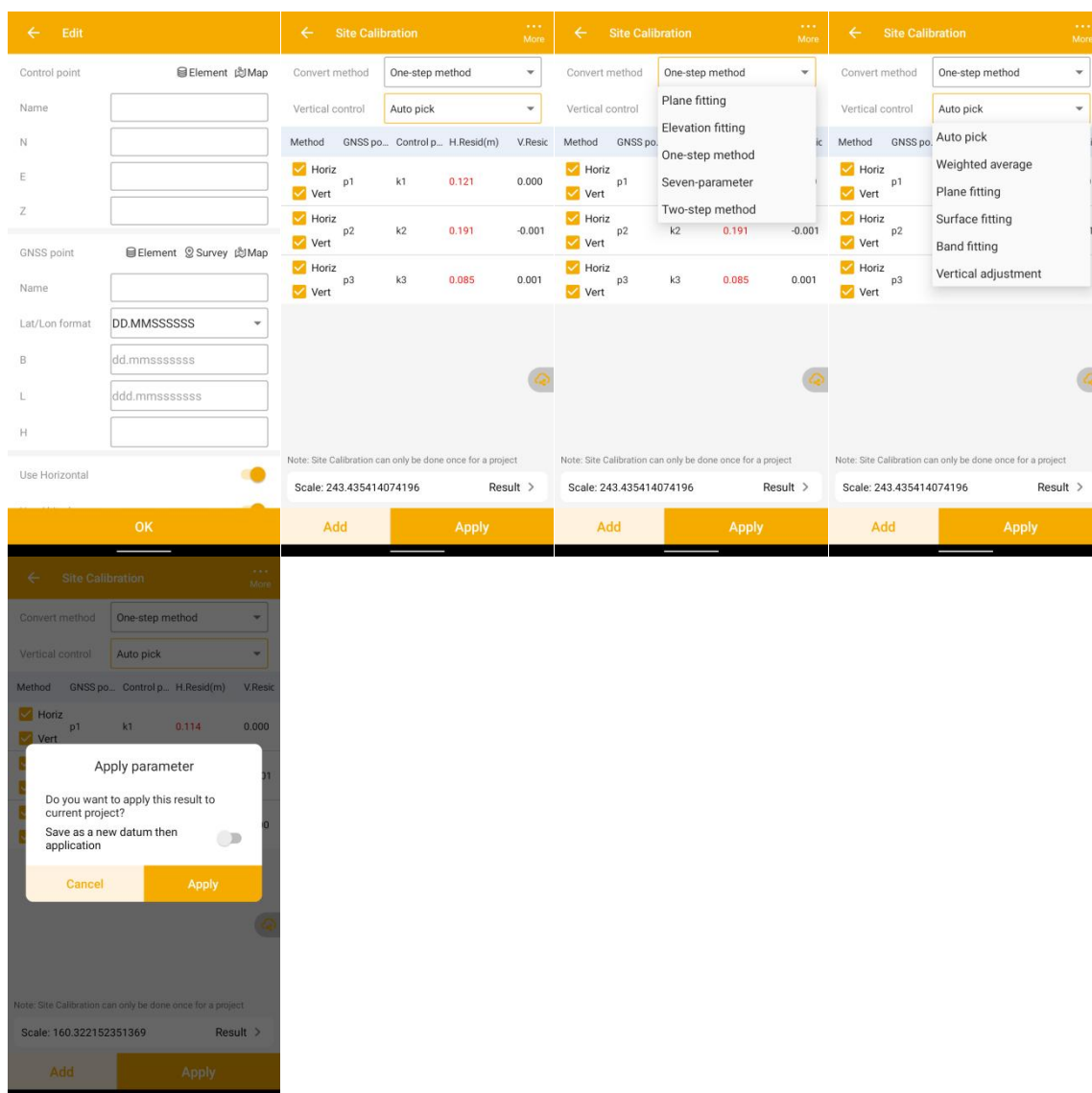
10.1 Site calibration

Site calibration is commonly needed once in one project, and all the points will be collected based on calibrated datum system.

1) Choose manual pair or auto pair.



2) If you choose manual pair, you can directly enter at least three groups' point to compute. (for example, take K1,K2,K3 as known points, take P1,P2,P3 as measured points) After click Compute to calculate, the software will calibrate automatically.



3) If you choose auto pair, it will auto compute according to the same name for known point and measured point. After click Compute to calculate, the software will calibrate automatically.

4) Click **Apply** to confirm to replace datum. The value of H.Resid and V.Resid should meet the requirement ($H.Resid \leq 0.015m$, and $V.Resid \leq 0.02m$).

10.2 Grid Shift

10.2 Grid Shift

Grid reset function is applied when you need to change the position of Base station in the same project.

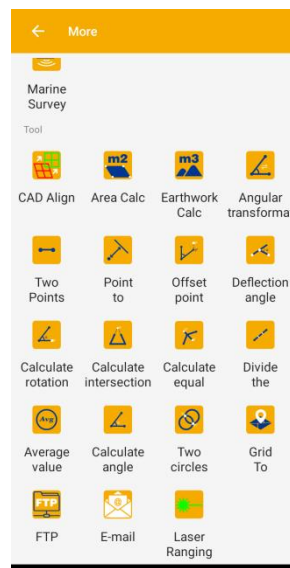
Click **Grid Shift in Survey interface** -> add current Base point and target Base point -> Click Compute -> Apply to complete grid shift.

Click to add the point from one Base

Click to select the same point from another

10.3 COGO

In the tool interface, you can calculate points/lines/angle directly on field.



- Angular transformation: Angular type transform;
- Two points: Calculate two points distance;
- Point to line: Distance from point to one line;

- Offset point: Calculate point with azimuth and distance;
- Deflection angle: Calculate angle of two lines;
- Calculate rotation point: Calculate the rotation point based on the rotation angle and distance;
- Calculate Intersection: Calculate intersection points from two lines;
- Calculate equal division angle: Calculate point from angle bisector;
- Divide the line: Calculate points on line by distance or segment;
- Average value: Calculate average from points;
- Calculate angle: Calculate angle between two lines;
- Two circles intersection point: Calculate intersection coordinates of two circles.

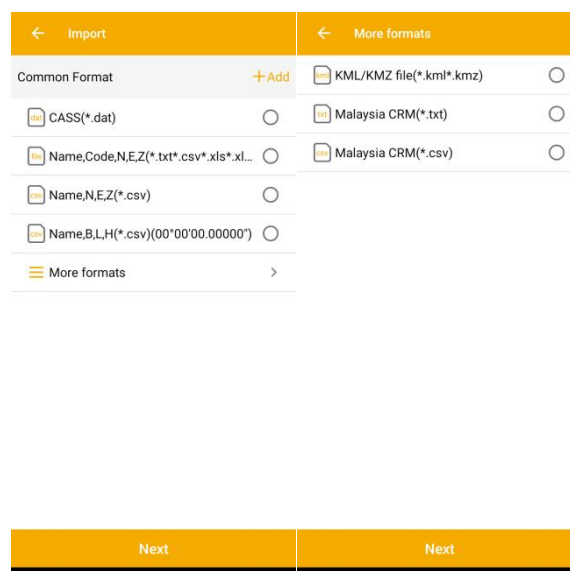
11.Data Export/Import

Survey Master supports to import/export data including grid coordinate, Lat/Lon coordinate with various data format, support import DXF/DWG file and export result of DXF/KML, etc.

11.1 Import

Tap **Import** in project interface, there are some predefined data formats, click **More** formats to get more predefined formats. Besides, you can click **Add** to create a User-defined type.

Long press the predefined data format that you don't use often, you can move this format to the More formats page; also, you can move the data format of More formats page to the previous page where stored the formats you usually use.



- Name: Enter the name for the format
- Delimiter: support Comma(,), Space(), Semicolon(;
- File format: support *.csv, *.dat, *.txt format

Click Select all to choose all elements, Click Clear to eliminate all elements selected.

The elements include: code, name, N, E, Z, B, L, H, X RMS, Y RMS, V.RMS, status, start time, occupation time, diff age, base ID, total AntHgt, Antenna height, measure type, antenna name, ending time, comment, RMS, PDOP, HDOP, VDOP, TDOP, GDOP, total SV, used SV, elevation, tilt offset, tilt angle, tilt distance

Tip: The format you defined will also be saved to Export interface.

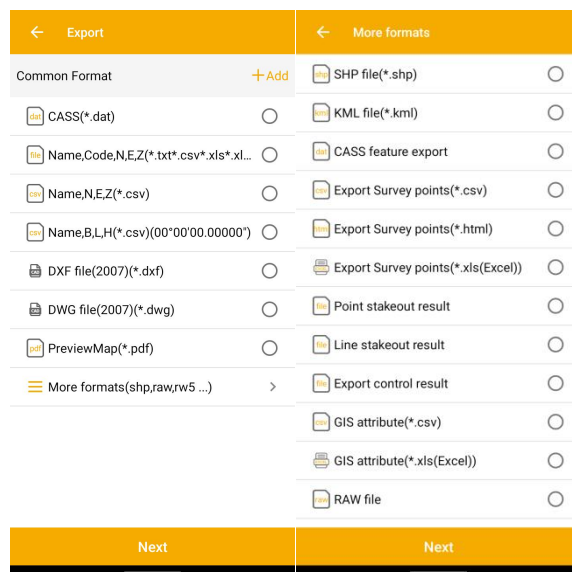
Choose one format to import data.

- The default export path is [.../Mfield/mn/data](#), you can also click Upperfolder to change to any other path where the file is.
- Point type: support Input point, Control point, Stake point

11.2 Export

Tap **Export** in Project interface to export simple data of survey points. Also, click **More** formats to export the survey points with detailed information or other formats like stake points/lines, DXF, SHP, KML, RAW, RW5, HTML, CASS feature result.

Same with Import result, long press the predefined data format to select the interface you want to place.



File format: support *.csv, *.dat, *.txt format choose one format to export data.

Select: support Survey point, Control point, Input point, Stake point, Base, also, you can set the data, name, code of data to specific export.

The default export path is [.../Mfield/mn/export](#), and the previous saved file will be shown below, you can also click **Upper** folder to change to any other path.

← Export	← Export Survey points(*.csv)	← Export Survey points(*.csv)	← Export
Common Format +Add CASS(*.dat) Name,Code,N,E,Z(*.txt*.csv*.xls*.xl...) Name,N,E,Z(*.csv) Name,B,L,H(*.csv)(00°00'00.000000") DXF file(2007)(*.*dxf) DWG file(2007)(*.*dwg) PreviewMap(*.pdf) More formats(shp,raw,rw5 ...)	File name(.csv) 1_161203_2026-1-4-17-22-17 Path /Mfield/mn/Export > Export image ☐	File name(.csv) 1_161203_2026-1-4-17-22-17 Path /Mfield/mn/Export > Export image ☐	Data format Name,N,E,Z(*.csv) Filter condition-Point type ☒ Survey ☐ Calc ☐ Control ☐ Base ☐ CP(input ☐ Input ☐ Unstake ☐ Map Time Today 1 Week All Start date ~ End date Keyword ☐
Next	OK	OK	Next

For the points, lines and polygons you surveyed in Topo survey and Feature survey, you can click **Export DXF** to export dxf file, then you can edit them in third party CAD software, or import to **Basemap** to check, or import to **Stake CAD** to stake.

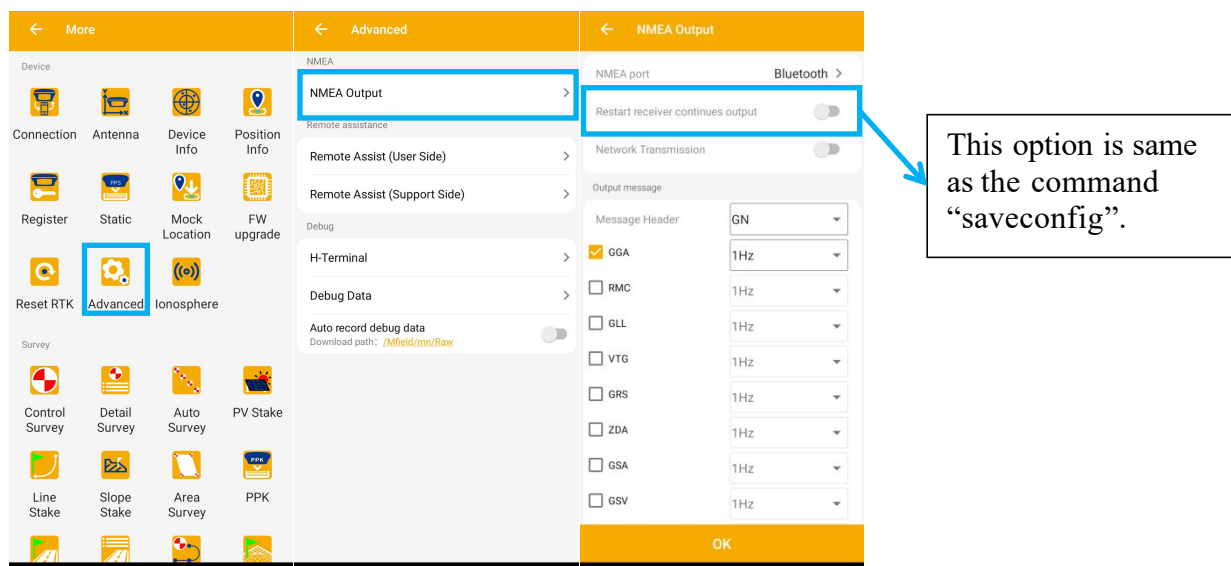
Choose the data that you want to export including survey point, input point, control point, stake point, base, line and polygon, and the layer properties includes name, code and height, the default text height is 0.5.

12.Export Result

12.1 NMEA 0183 output

With **NMEA 0183** function, you can quickly set to output NMEA data from lemo port or Bluetooth. In fact, this function is same as enter commands “log comX gpXXX ontime X” .

Choose NMEA Port -> Baud -> check commands you want to output.



Data transfer: for transmit all the BT output to the address.

12.2 Register M8 via Mfield

Normally, the register code is like this, the digital code can be used to generate a QR code:

`FUNCTIONREG:2207453726-3851620954-0949162572-0697504466-0613618189-0027539229`

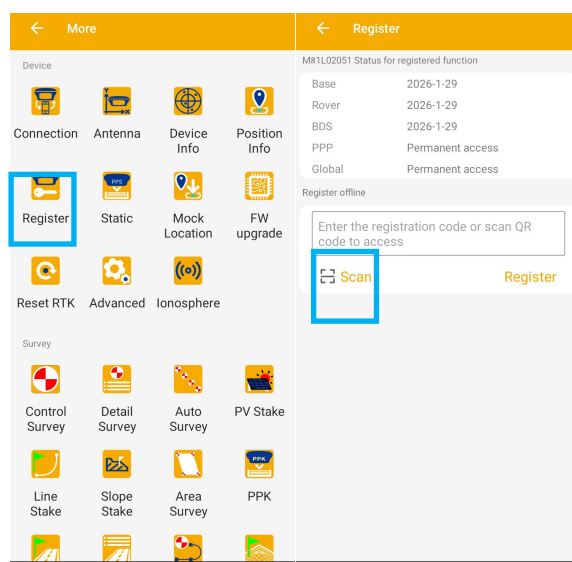


Note: The length of code may different according to different requirements.

Following shows three methods to register the receiver.

➤ **scan code**

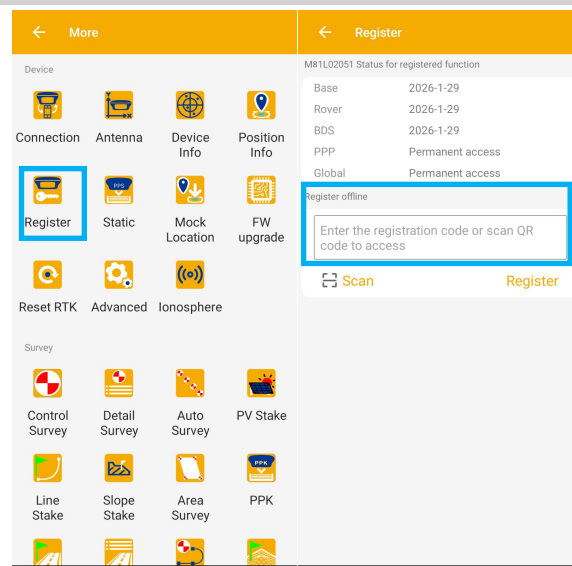
For **scan code**, you just need to scan the generated QR code:



➤ Register function

For Register function, you need only enter the number:

2207453726-3851620954-0949162572-0697504466-0613618189-0027539229



➤ Register via commands

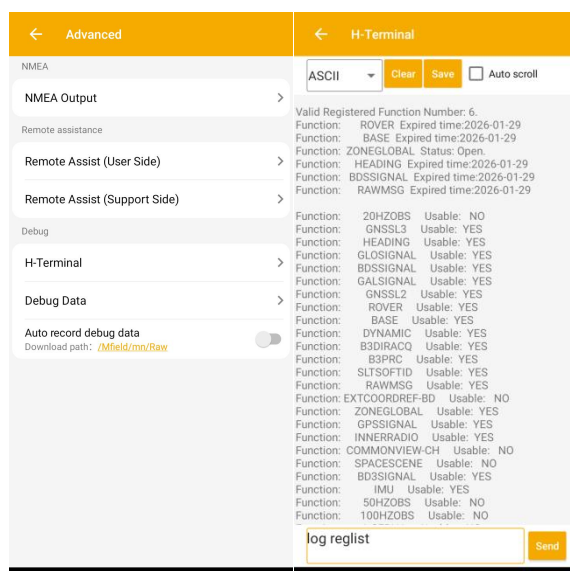
You need copy the whole code, include the word 'FUNCTIONREG:'

FUNCTIONREG:2207453726-3851620954-0949162572-0697504466-0613618189-0027539229

Send command: **LOG REGLIST**

FUNCTIONREG:2207453726-3851620954-0949162572-0697504466-0613618189-0027539229

and enter the cursor to next line, then send. To check receiver register status.



13. Firmware Upgrade

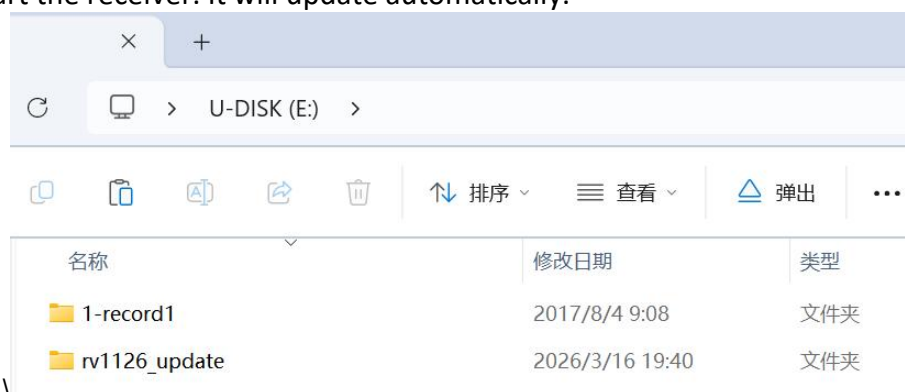
1) Upgrade by PC

Prepare a USB-Type C cable. And download a Driver of USB recognition. It's important.

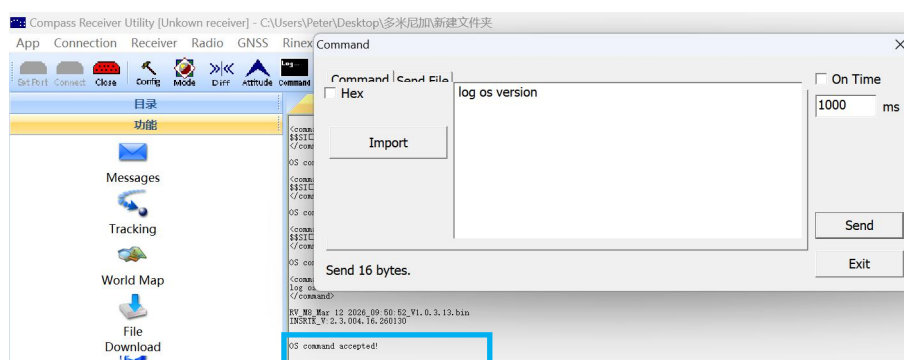
M8 adopts the latest chip, integrated system and board, which shall be distinguished during upgrading.

Connect M8 to your PC via type-c cable and turn on the receiver.

Extract the file, copy the folder directly to the root directory of the M8's internal memory, then restart the receiver. It will update automatically.



When the upgrade is complete, the firmware folder in the internal memory of the M8 receiver will disappear. You can turn on CRU to check the firmware version.

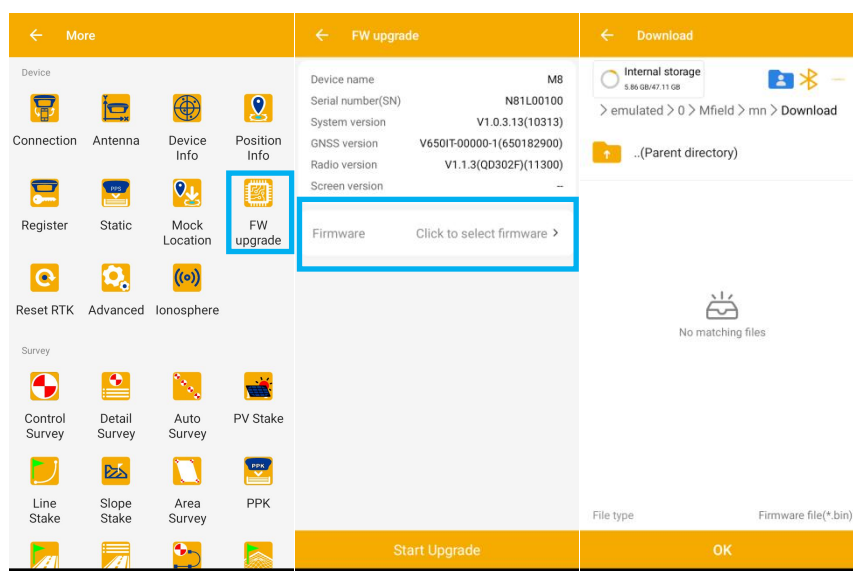


2) Upgrade by BIN file

If you want to update the firmware for your receiver, you need to copy the firmware to your controller first, connect your receiver to the Mfield, then go to the **Device->FW**

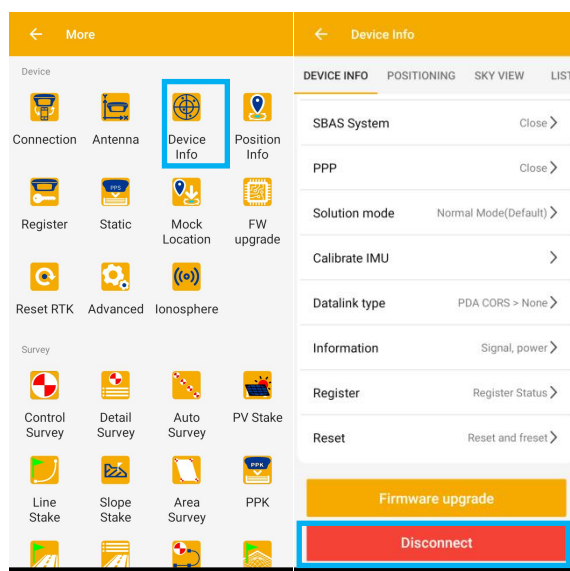
Update, choose the firmware in your controller folder.

Go to **Device Info-> Firmware Update**, or click the FW Update on the main interface, go to FW update interface, click Start, it will take about 10 minutes to finish the update. After you finish the update, you need to restart the receiver.



3) Upgrade by online

Click the **Device Info->Firmware upgrade**, choose a firmware upgrade directly.



Appendix: Physical Parameter of Modules inside of M8

Radio:

Radio parameter	Specifications
Frequency range	410-470MHz
Protocol	Transparent/TT450S/South/MaC/Maxlink/ Maxlink+
Airlink rate	9600 / 19200/11000 adjustable
Bandwidth	25kbps
Work distance	5-15 km, depends on power supply and environment condition, M8 can only function as a rover station.
Modulation	GMSK

Bluetooth:V 4.0 protocol, compatible with Windows OS and Android OS

Frequency Range: 2.402Ghz-2.480Ghz

RF Power (Max): 4dBm

Band Width: 2Mh