TECHNICAL SUPPORT DOCUMENTATION

How to Offset a Line Segment in Orbitas

Orbitas Advanced Features

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How to Offset a Line Segment in Orbitas

Offsetting a line segment is an advanced feature used when an actual corner or a line cannot be directly staked due to obstructions or when a right-of–way buffer is required. Additional applications might include maintaining a mandated distance from an existing utility line or a property line.

Requirements

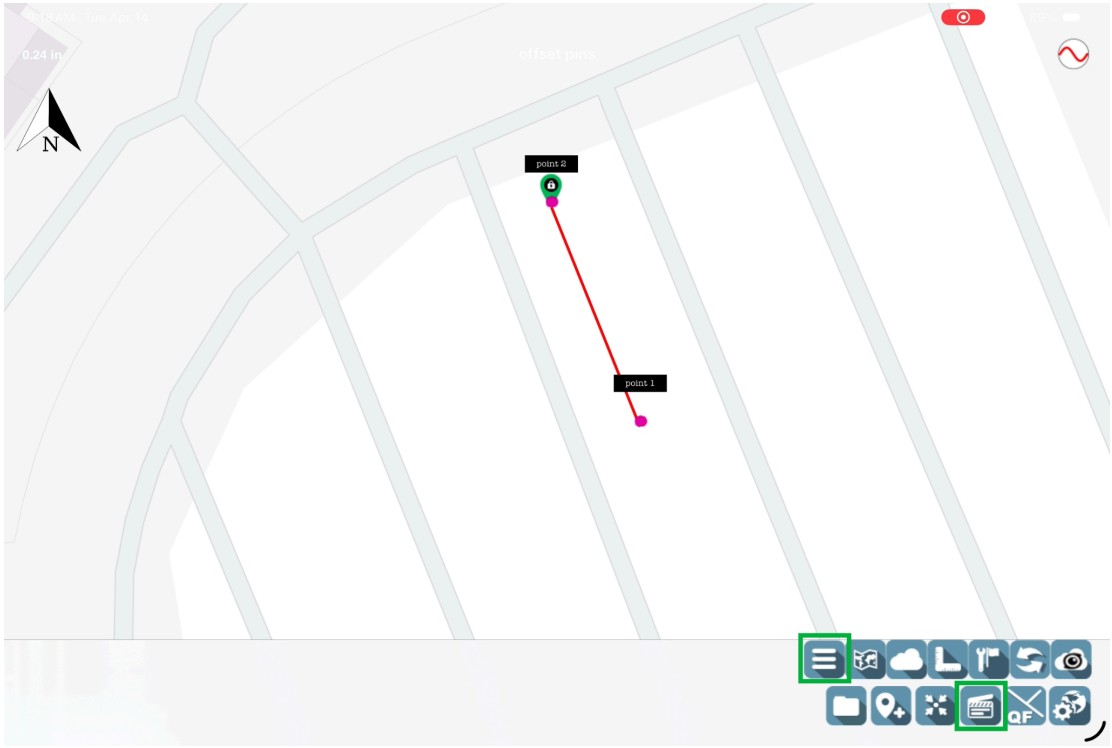
- Asteri GNSS Receiver
- Orbitas Basic or Pro Subscription
- Internet Connection
- Two collected locations on a line, with the second location parented to the first.
- Optional: Orbitas Correct

Determine Your Bearing

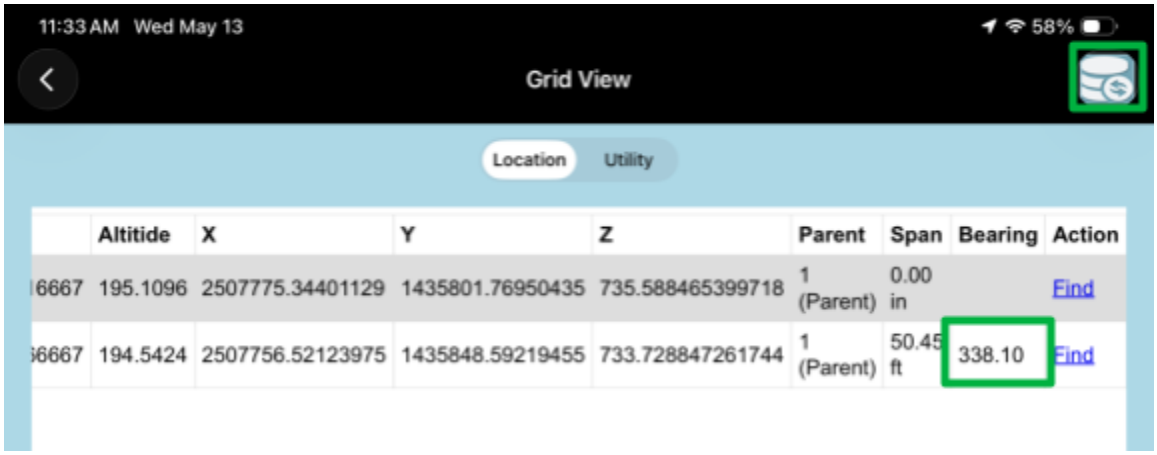
Once you've collected two locations on a line, with the second location parented to the first, you'll need to determine your bearing.

1. From the map screen, click on the **ACTIONS** button on the bottom right.

2. Select the **GRID VIEW** button. In Grid View, you can see all of your location data.



3. Click the **RECALCULATE** button in the top right to refresh your locations and calculate your bearing.
4. Scroll to the right and make note of your bearing.
   In our example, it's 338.10.



	Altitide	X	Y	Z	Parent	Span	Bearing	Action
6667	195.1096	2507775.34401129	1435801.76950435	735.588465399718	1 (Parent)	0.00 in		Find
6667	194.5424	2507756.52123975	1435848.59219455	733.728847261744	1 (Parent)	50.45 ft	338.10	Find

5. Close the form to return to the main map screen.

Calculate Your Bearing

Calculating your bearing will depend on what your bearing was in the Grid View window (step 4) and what side of your line you want your offset to be placed. In all of these calculations, we'll be accounting for all decimal places of our bearing.

If you want to **offset to the right** of your line segment, you will **add 90°** to your collected bearing value collected in step 4.

If you want to **offset to the left** of your line segment, you will **subtract 90°** from your collected bearing value collected in step 4.

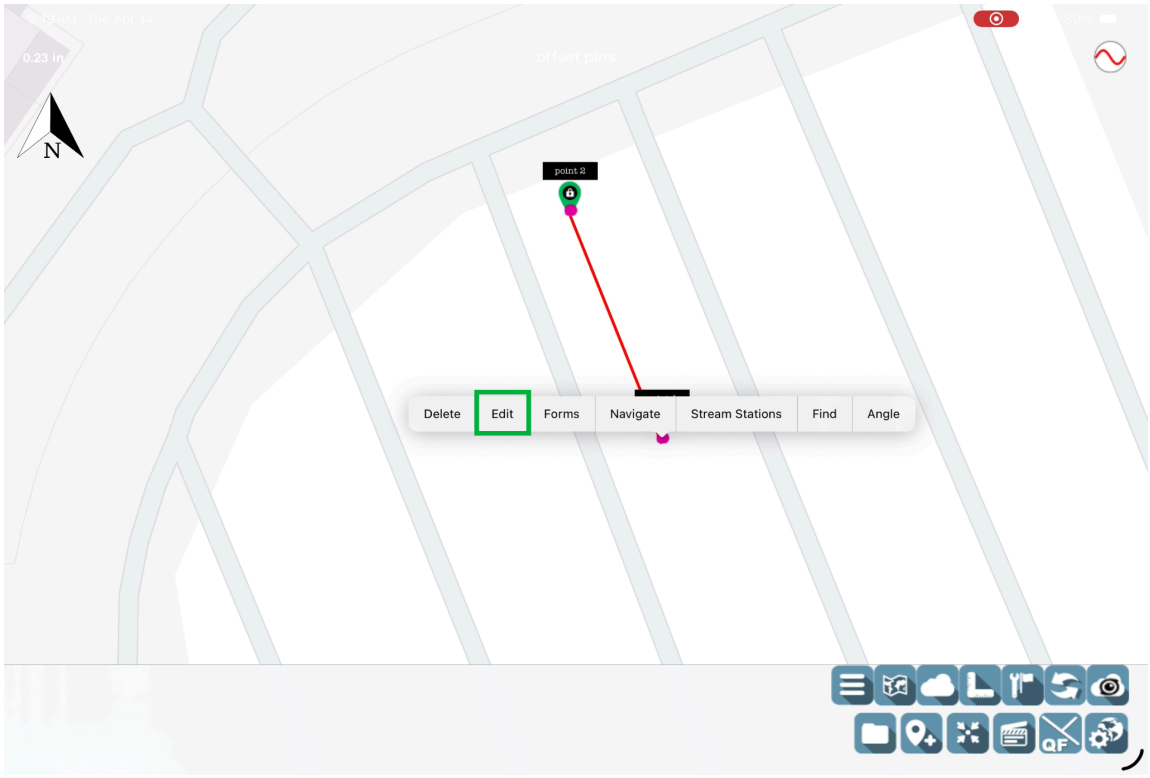
Should your calculated value fall outside of the 0° to 360° range, perform the following calculations:

- If the result is greater than 360°, subtract 360°.
- If the result is less than 0°, add 360°.

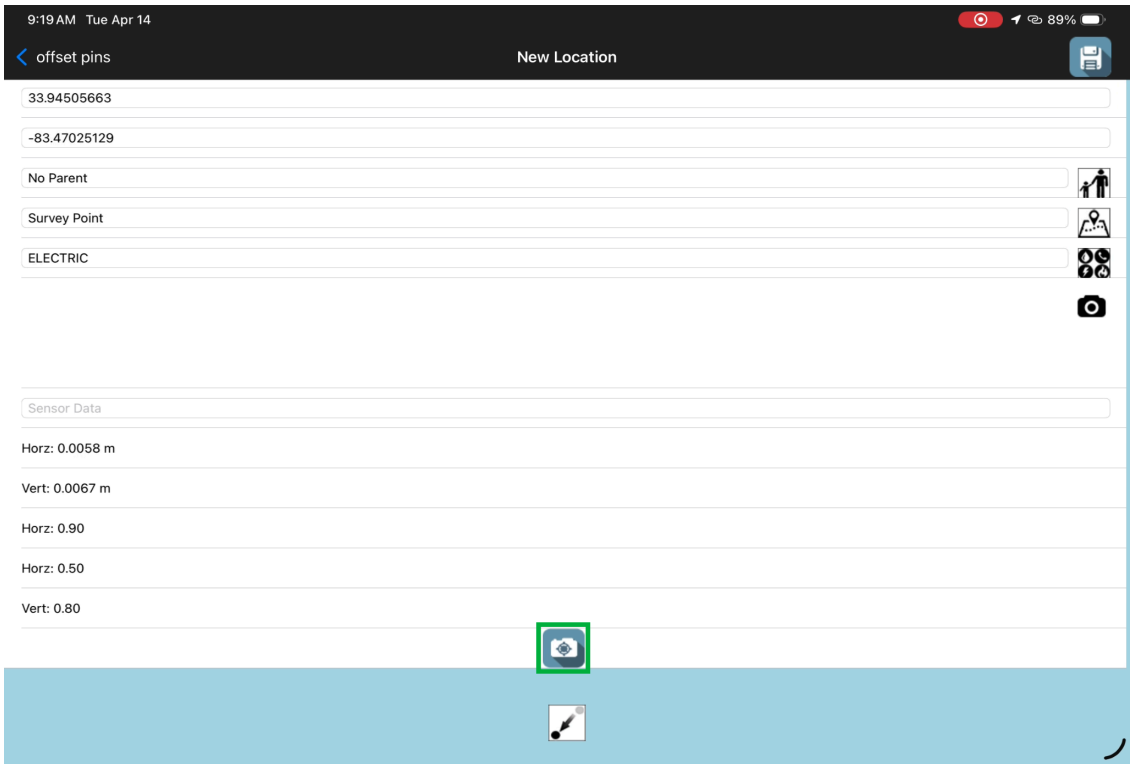
Apply a Line Segment Offset

1. From the main map, click on one of your locations.

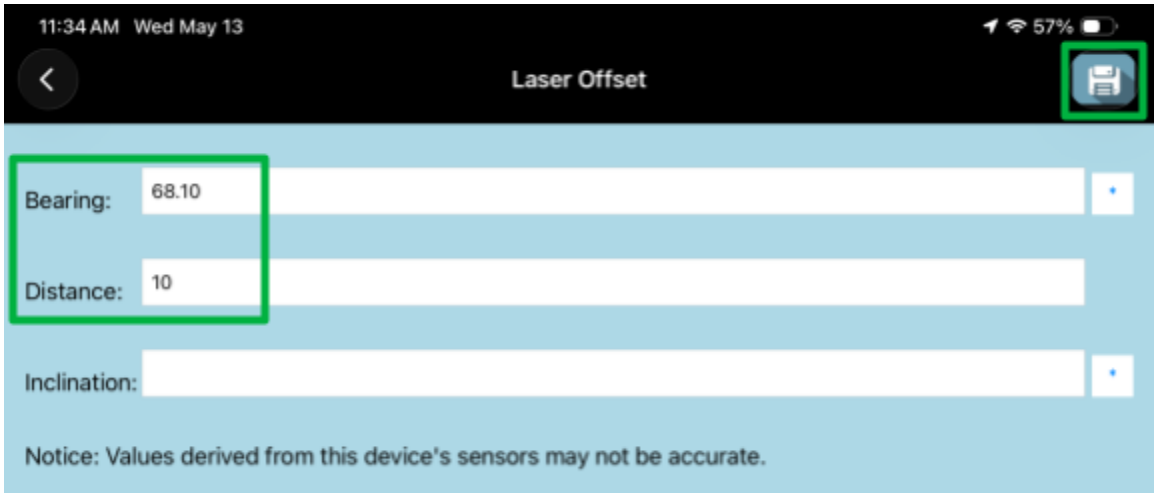
2. Select **EDIT**.



3. In the location data window, select the **OFFSET** button at the bottom of your screen.



4. Enter your calculated bearing value in the **BEARING** field.
    a. In our example, our original bearing was 338.10.
    338.10 + 90° = 428.10.
    Because our result is greater than 360°, we'll subtract 360°, giving us 68.10.
5. In the **DISTANCE** field, enter your desired offset distance in feet.
In our example, we want to offset by 10 feet.



6. Click **SAVE** on the top right corner of the OFFSET window.
7. Click **SAVE** on the top right corner of the LOCATION window.
8. Repeat these steps for the next location, applying the same bearing and offset value as the first location.

Our line has now been offset!