



How to Measure in Points & Lines on Topcon Pocket 3D

Contents

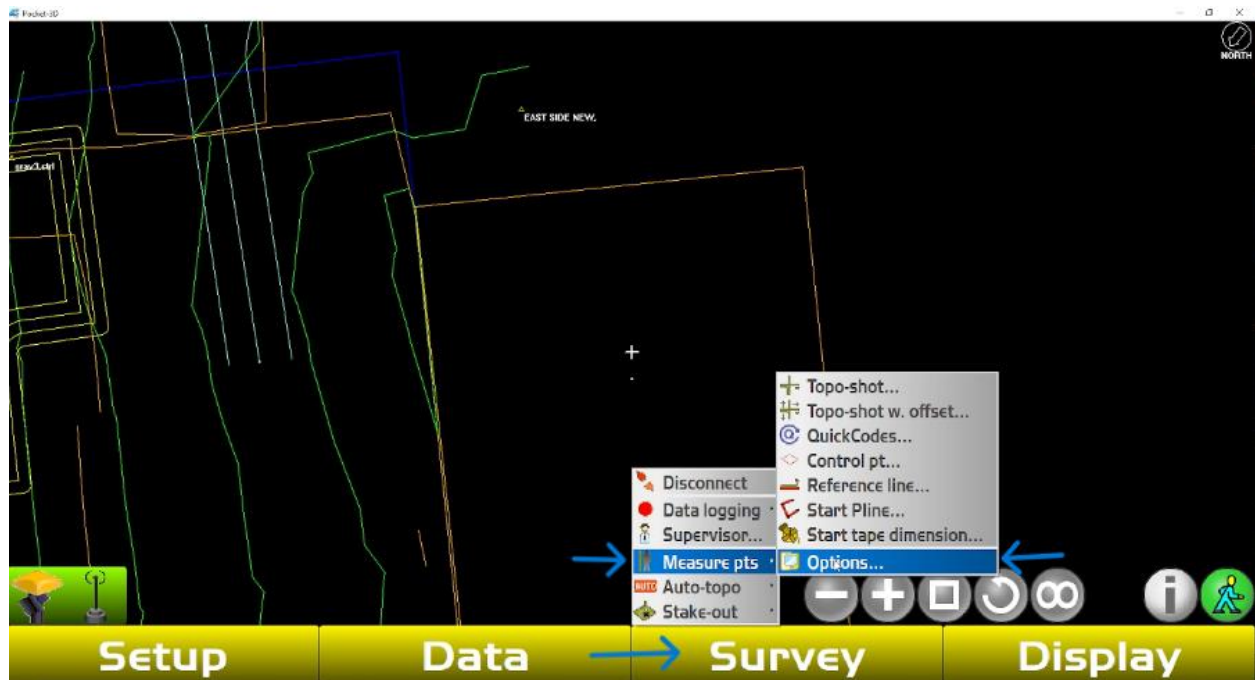
How to Change your Point duration (Secs)	1
How to Measure in a Topo-Shot	4
How to Shoot a Topo-shot With Offset	6
Steps to Measure a Topo-shot With an Offset:	7
How to use Quick Codes	8
Creating a Point QuickCode:	8
Creating a Line QuickCode:	11
How To Turn Off QuickCode Shortcuts:.....	15
Measuring in a Control Point.....	18
How to Measure in a Point Off of a Line	21
How to Start Pline/ Measure in a line.....	24
How to Use Tape Dimensions	31

How to Change your Point duration (Secs)

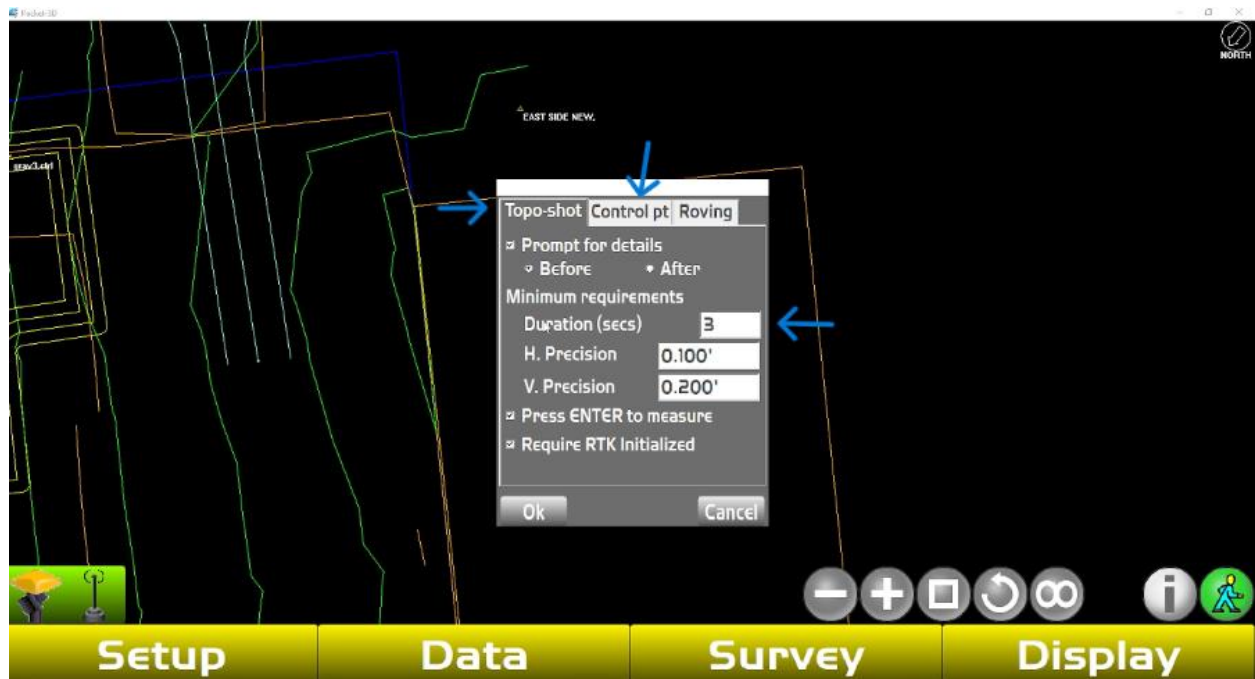
What is point Duration (Secs)?

- Point Duration (Secs) is the time the device takes to record each measurement. You can customize the duration based on your needs:

1. Tap "Survey" > "Measure pts" > "Options..."



2. To change the measurement speed, go to **"Duration (secs)"** and set it to your preferred time. This controls how long the device will take to measure each point. After adjusting the duration, select **"Control pt"** from the top menu.



3. Change the **"Duration (secs)"** to your desired value. It's recommended to set it to at least 30 seconds for control points to ensure accuracy.

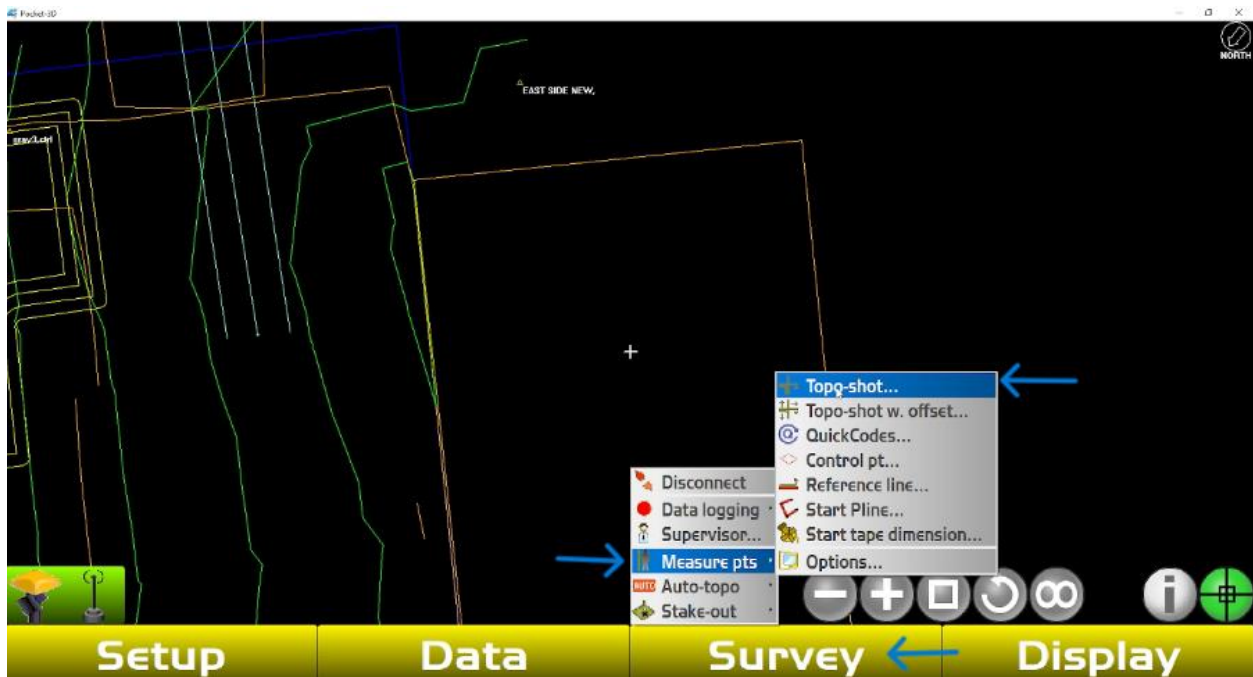


How to Measure in a Topo-Shot

What is a **Topo-shot**?

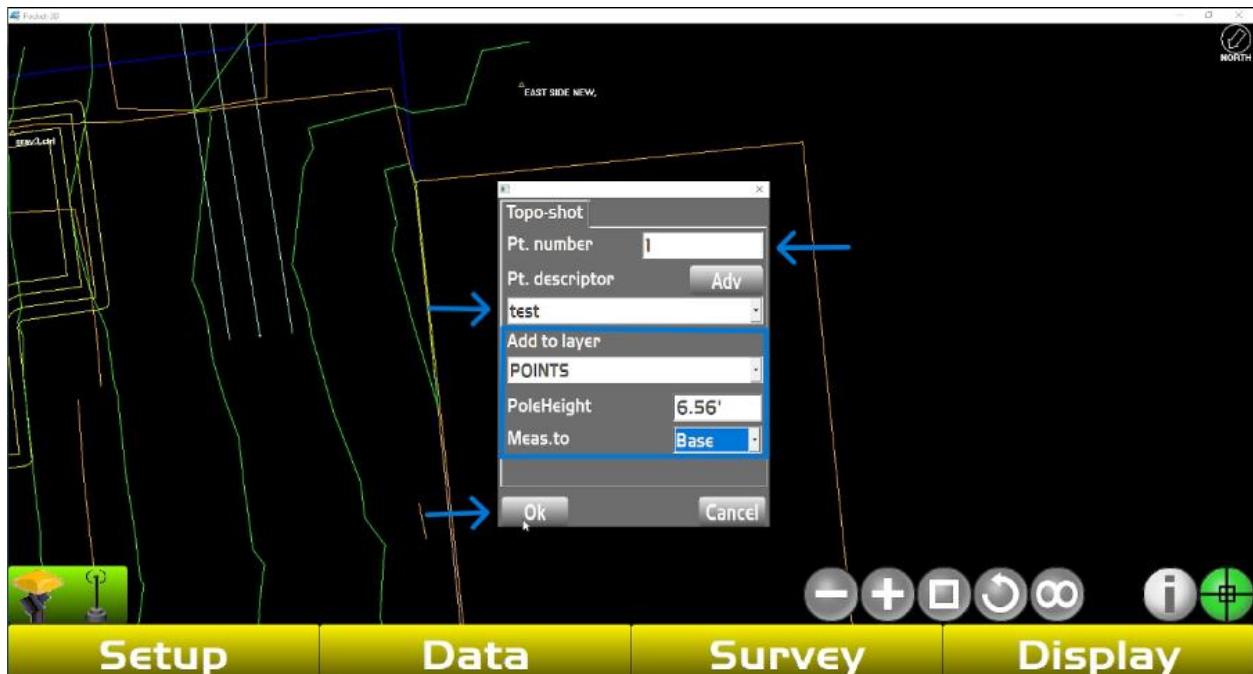
A **Topo-shot** in Topcon Pocket 3D is a way to measure specific points on the ground, like the height or slope, to map out the area. It helps in surveying and planning by recording the exact location and elevation of those points.

1. Tap “Survey” > “Measure pts” > “Topo-shot...”



2. In the “**Pt. number**” field, you can enter a number or name to identify the point you're measuring. In the “**Pt. descriptor**” field, you don’t need to add anything unless you want to include a specific description for the point.

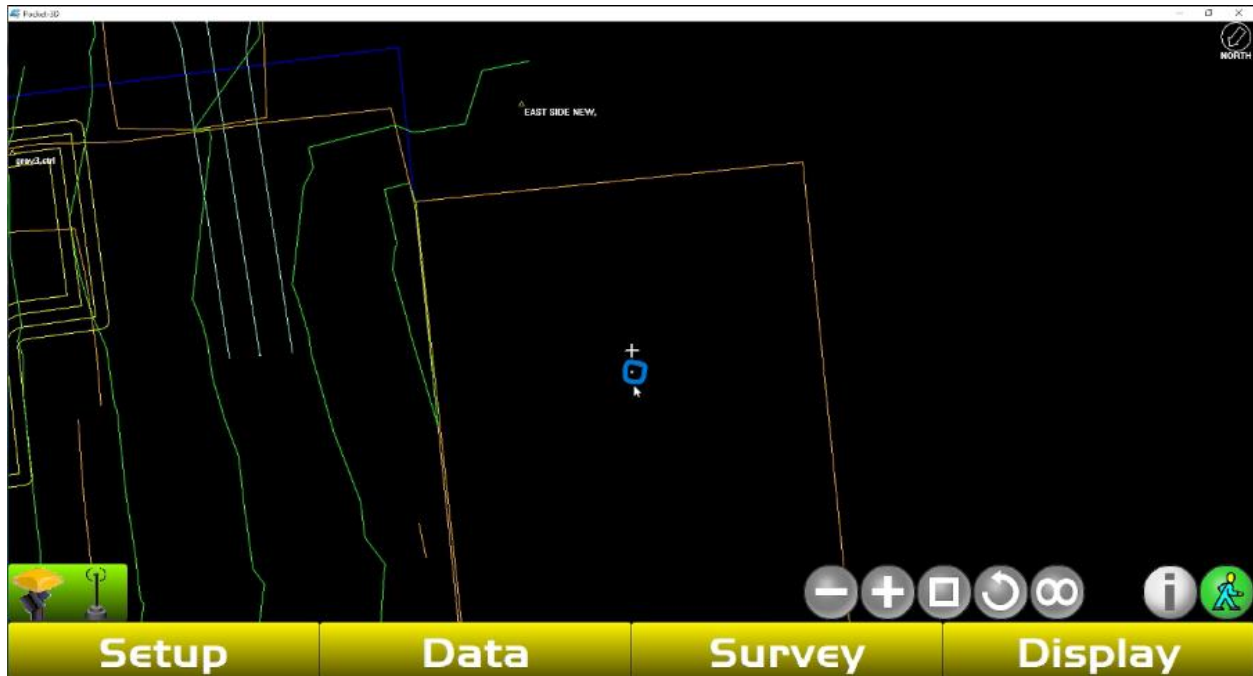
- Under “**Add to layer**”, you can choose which layer the point belongs to. This allows you to organize your measurements into different categories or groups (e.g., layers for different areas of the site). You can add your point to an existing layer or create a new one, making it easier to manage your data.
- In the “**Pole height**” box, enter the correct height of your pole. This is important for accurate measurements.
- Under “**Meas.to**”, make sure it says “**Base**”. This ensures the measurement is taken from the base of the rover (the bottom), which is necessary for accurate point placement.
- Tap “**Ok**” to proceed.



3. The system will display a message indicating that the point is being measured.

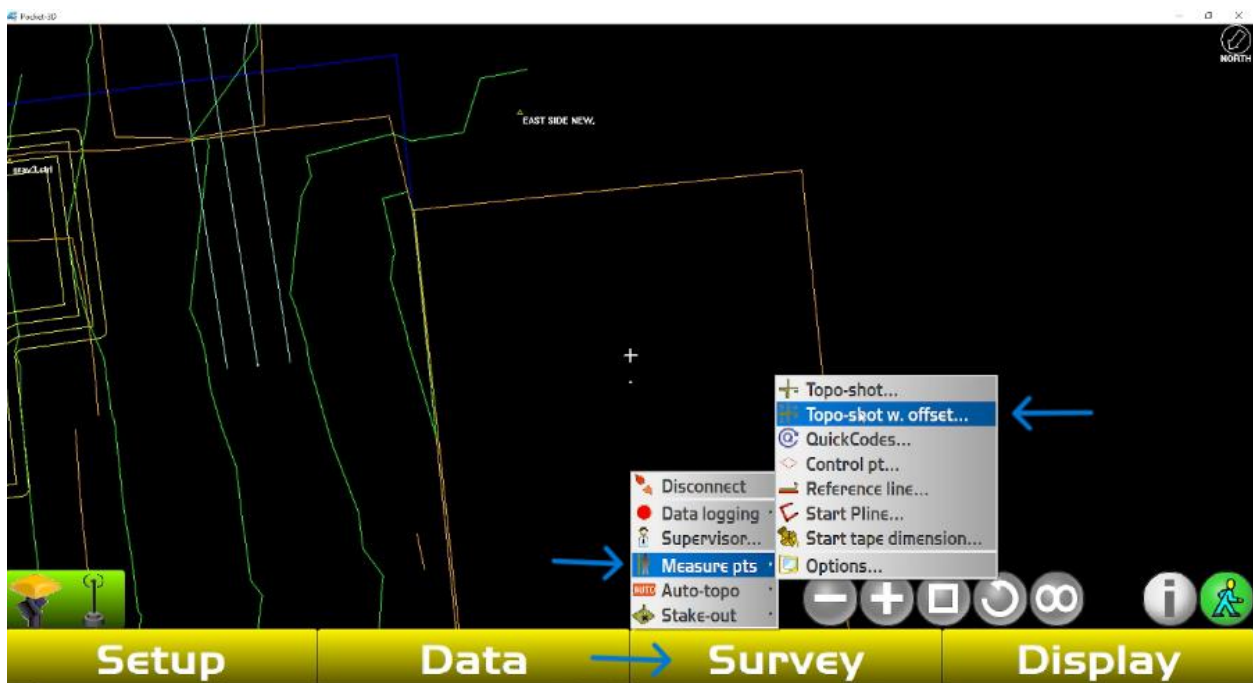


4. If you move away from your position, you will see a little white dot on the screen. This dot represents the Topo-shot you just measured with your rover, showing its location on the map



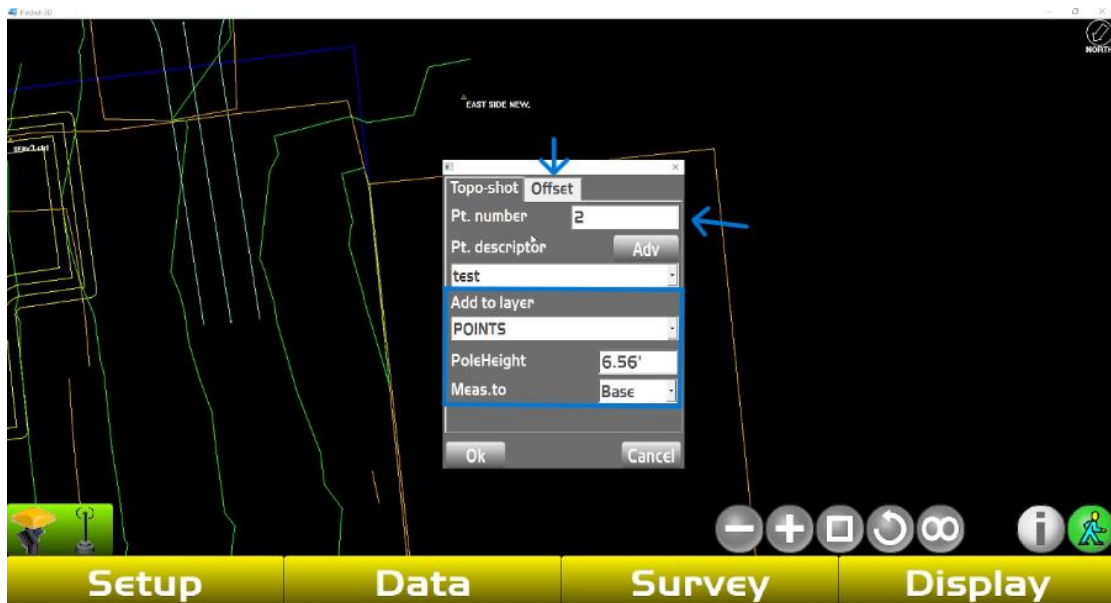
How to Shoot a Topo-shot With Offset

1. Tap "Survey" > "Measure pts" > "Topo-shot w. offset..."

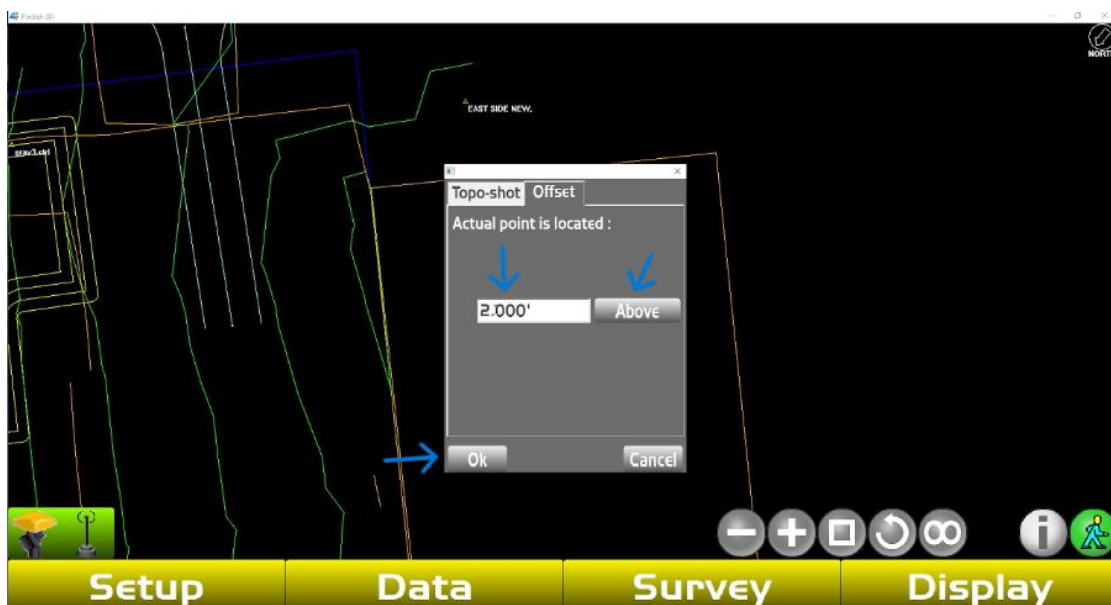


Steps to Measure a Topo-shot With an Offset:

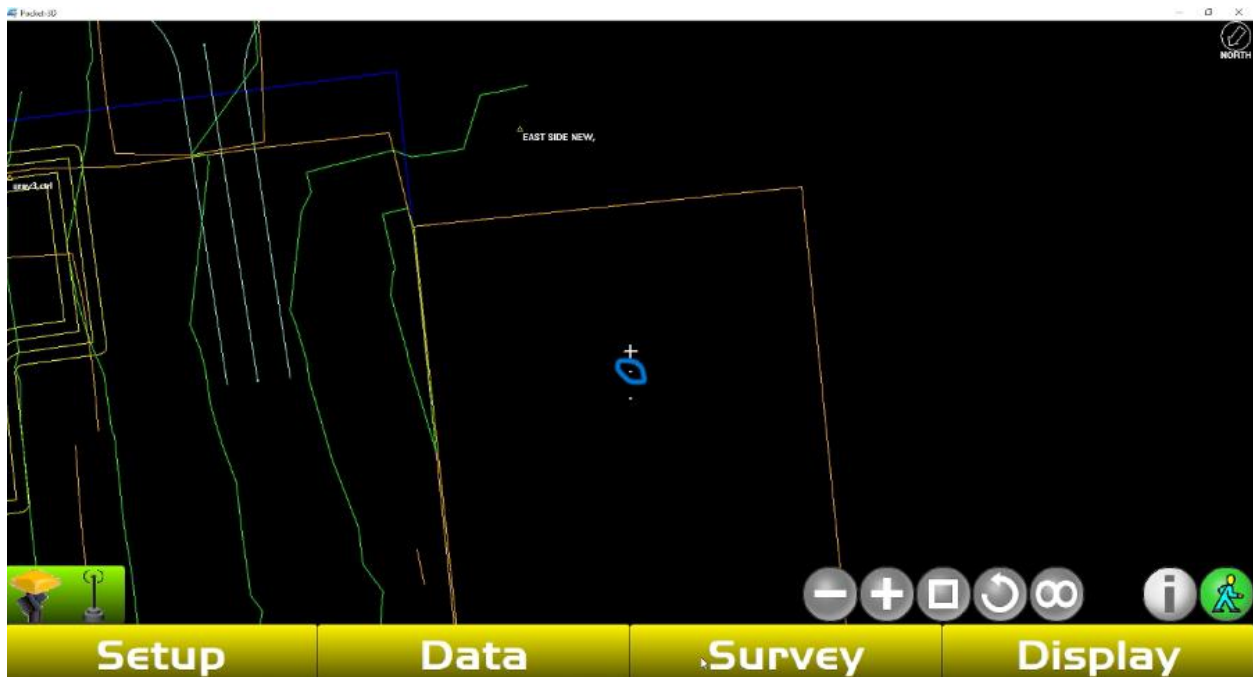
2. In the “**Pt. number**” field, enter a unique point number or name. Optionally, you can add a “**Pt. descriptor**” for further clarification.
- Choose the appropriate “**Add to layer**” option to categorize your point.
 - Confirm that the “**Pole Height**” is correctly entered for accurate measurements.
 - Verify that “**Meas.to**” is set to “Base” for correct reference.
 - Tap “**Offset**” in the top menu to adjust your offset settings.



3. In the Offset box, tap “**Above**” or “**Below**” to adjust the offset (e.g., for 2 feet below, select “**Below**”), then tap “**Ok**”.



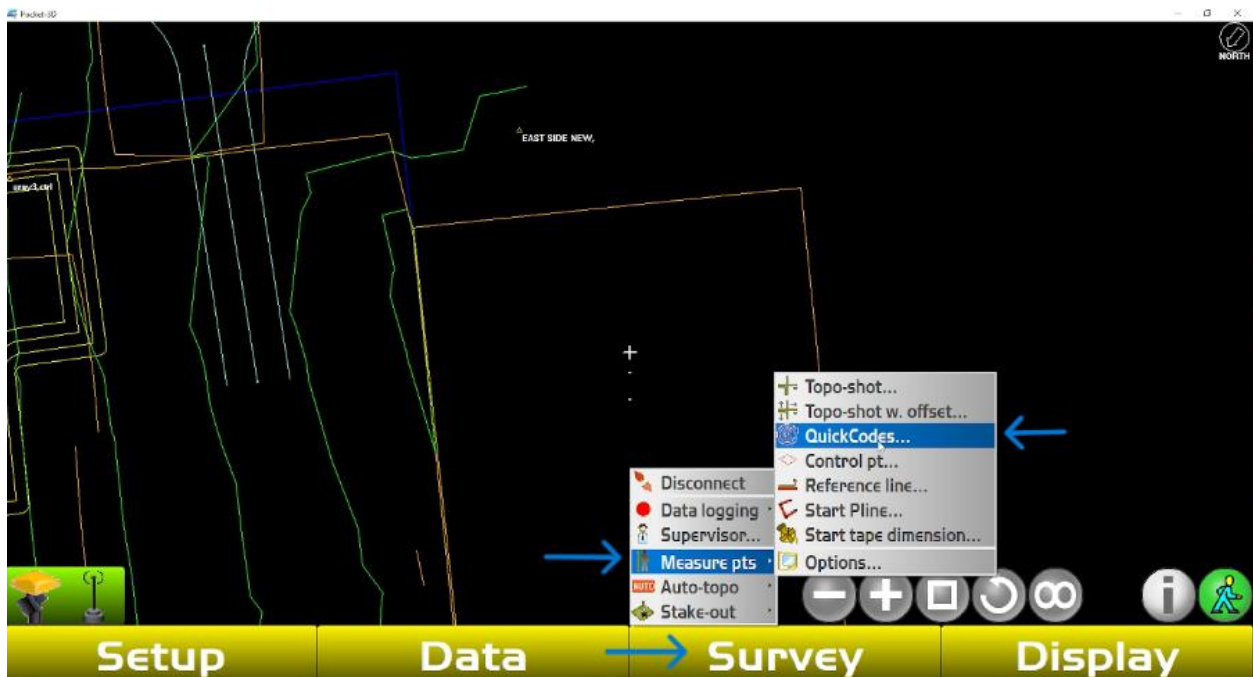
4. The white dot on the screen will show where you've marked the point with the offset applied.



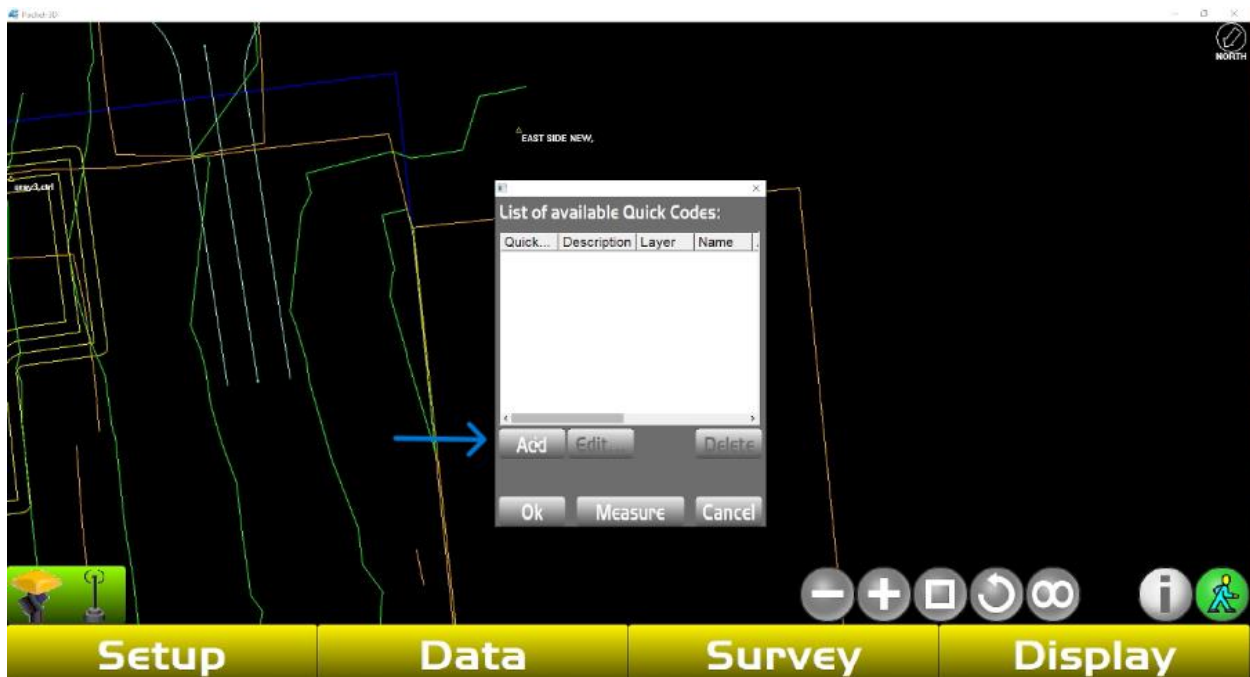
How to use Quick Codes

Creating a Point QuickCode:

1. Tap "Survey" > "Measure pts" > "QuickCodes..."

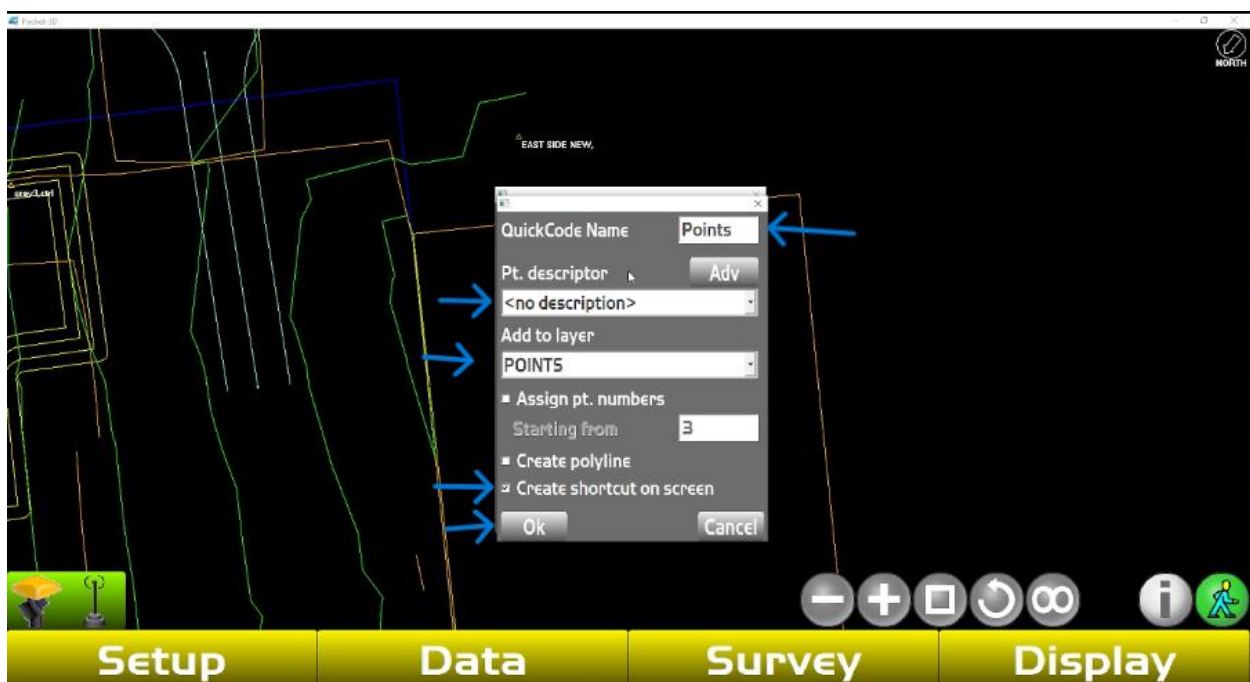


2. Tap “Add”

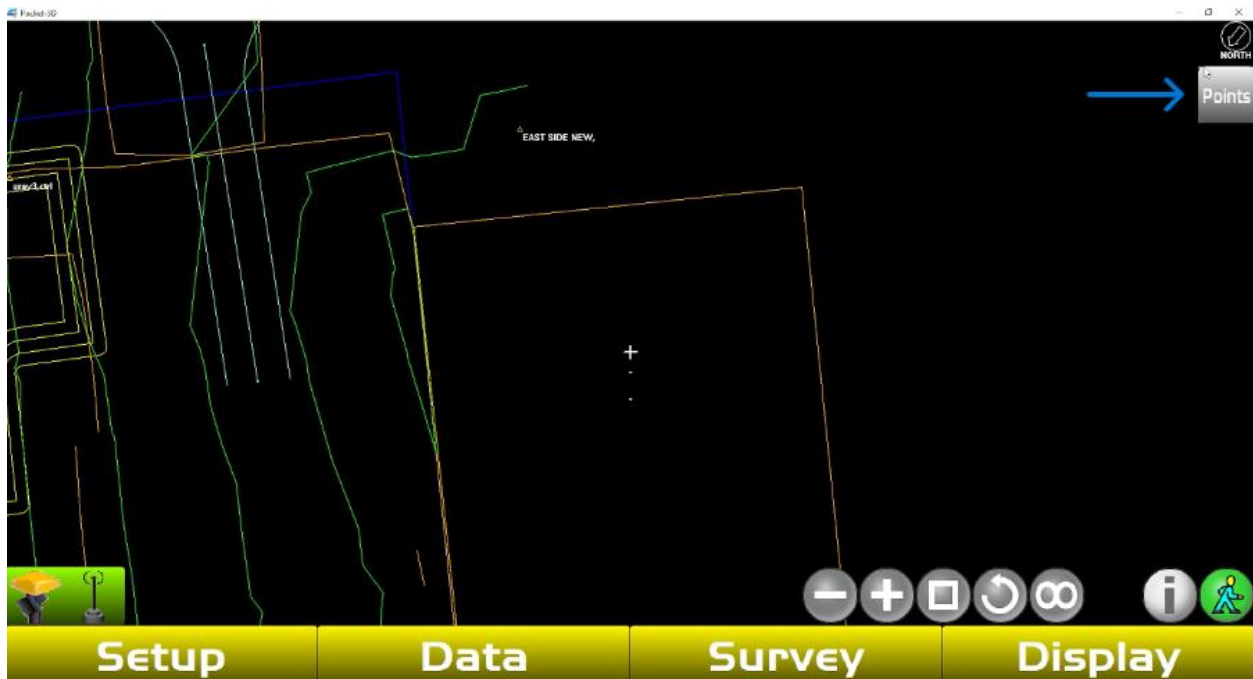


3. Enter “Points” as the “QuickCode Name” and optionally add a “Pt. descriptor”. Select a layer under “Add to layer” for organizing points.

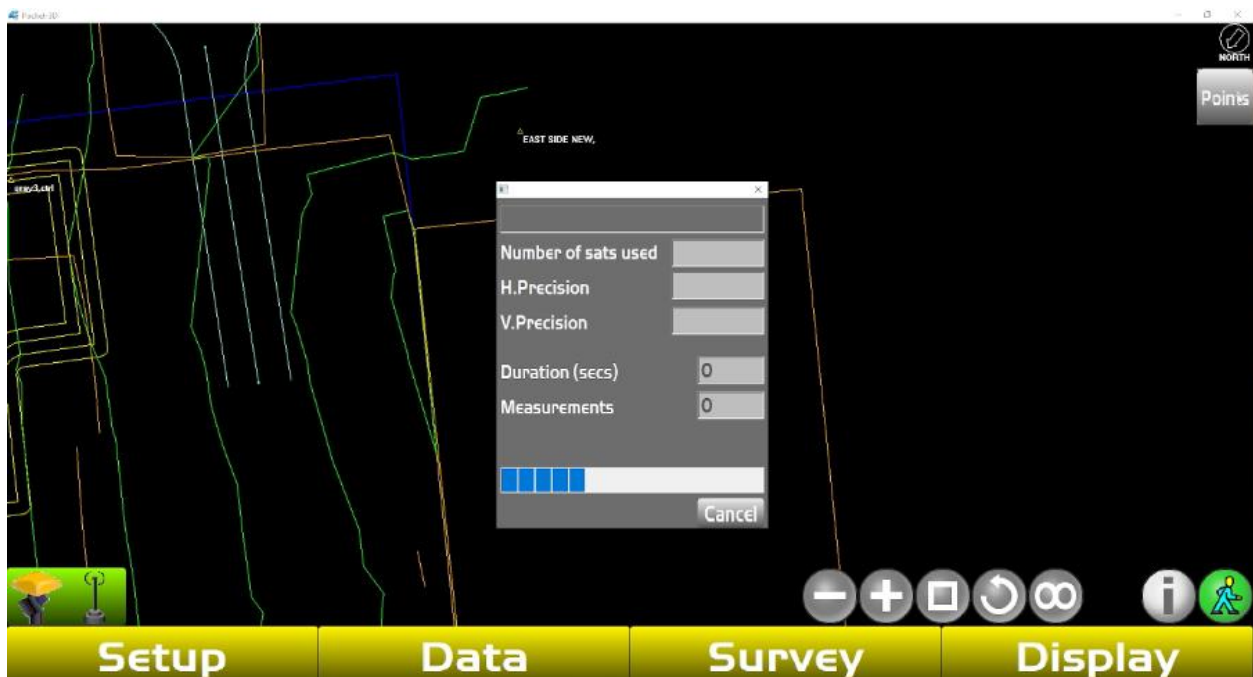
- Make sure to check the box for “Create shortcut on screen”. This will add a button to your screen for quick access to Topo-shots without navigating through menus.
- Tap “Ok”.



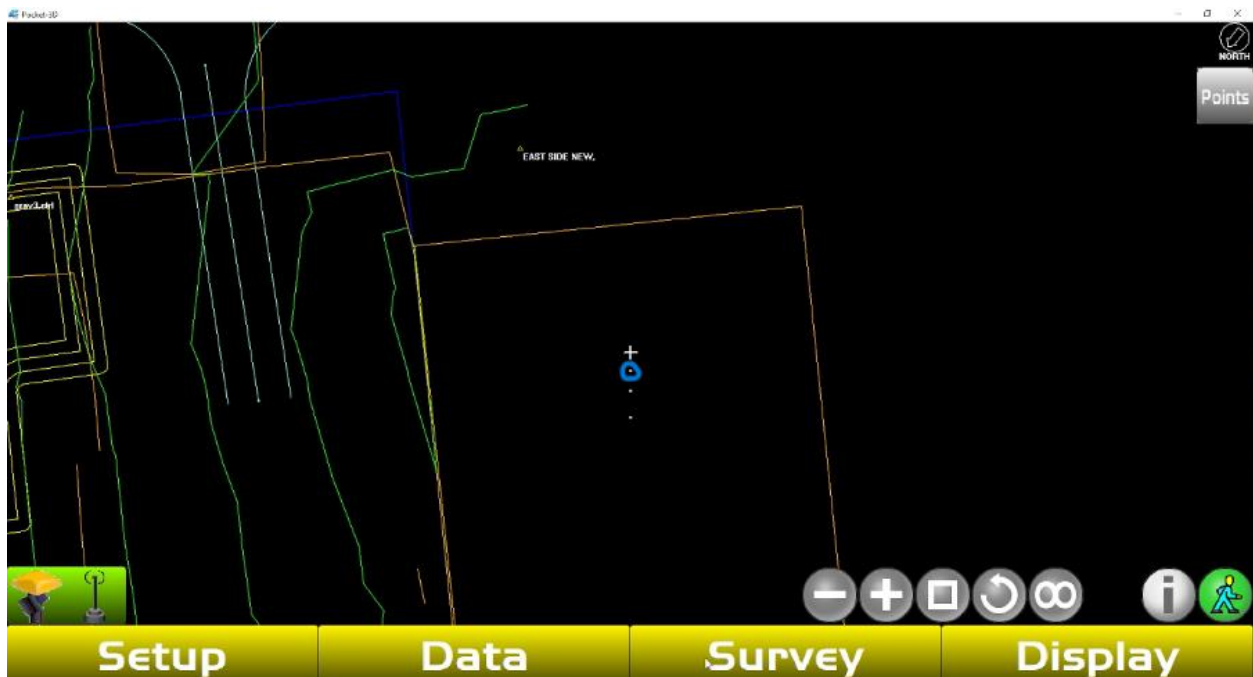
4. Tap the **"Points"** shortcut button on your screen to measure a Topo-shot quickly.



5. Wait for the point to measure

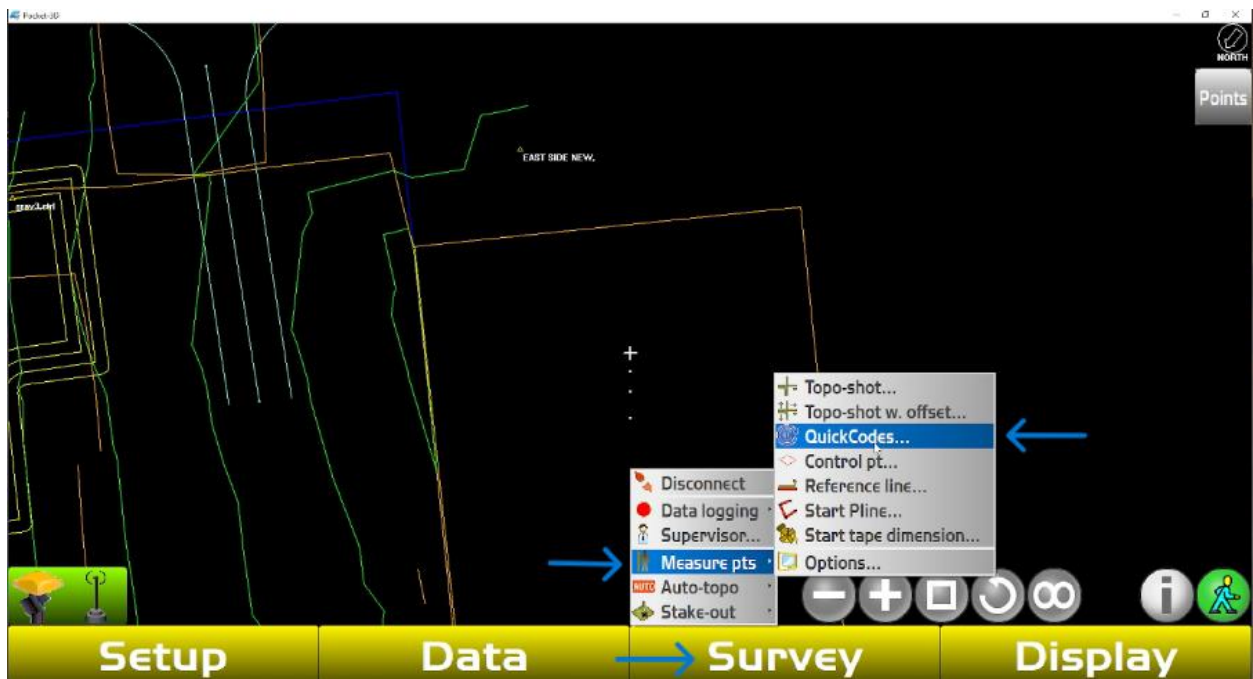


6. After measuring, you will see a white dot on the map showing the location of the Topo-shot.

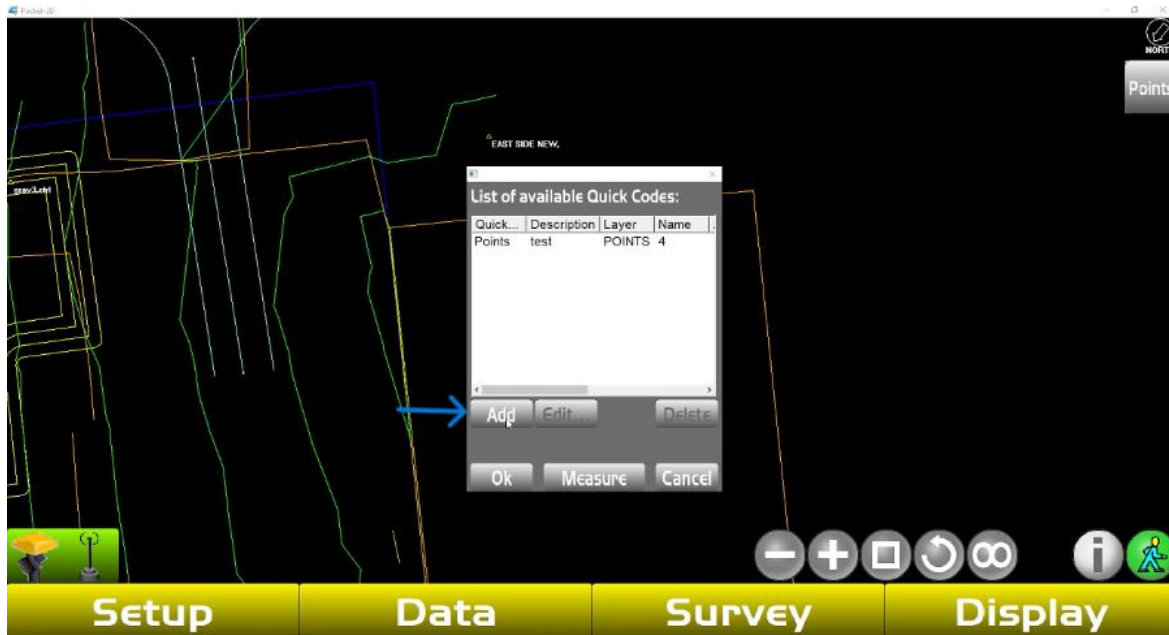


Creating a Line QuickCode:

1. Tap "Survey" > "Measure pts" > "QuickCodes..."



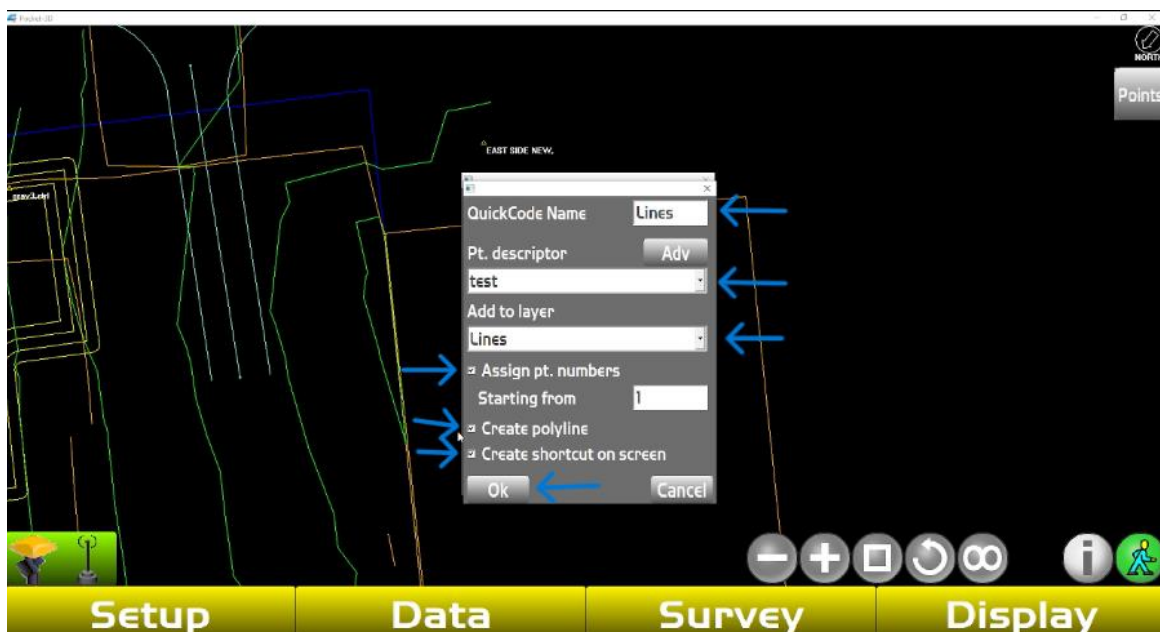
2. Tap “Add”



In the box next to “QuickCode Name”, enter “Lines”. Optionally, add a “Pt. descriptor” if you’d like to include a description for these points. Under “Add to layer”, select the appropriate layer for your lines.

- Check the box for “Assign pt. numbers starting from” and enter the starting number in the box.
- Check the “Create polyline” box to create a line based on the points you measure.
- Ensure the “Create shortcut on screen” box is checked, which will place a shortcut button in the top-right corner for easy access to shoot lines.

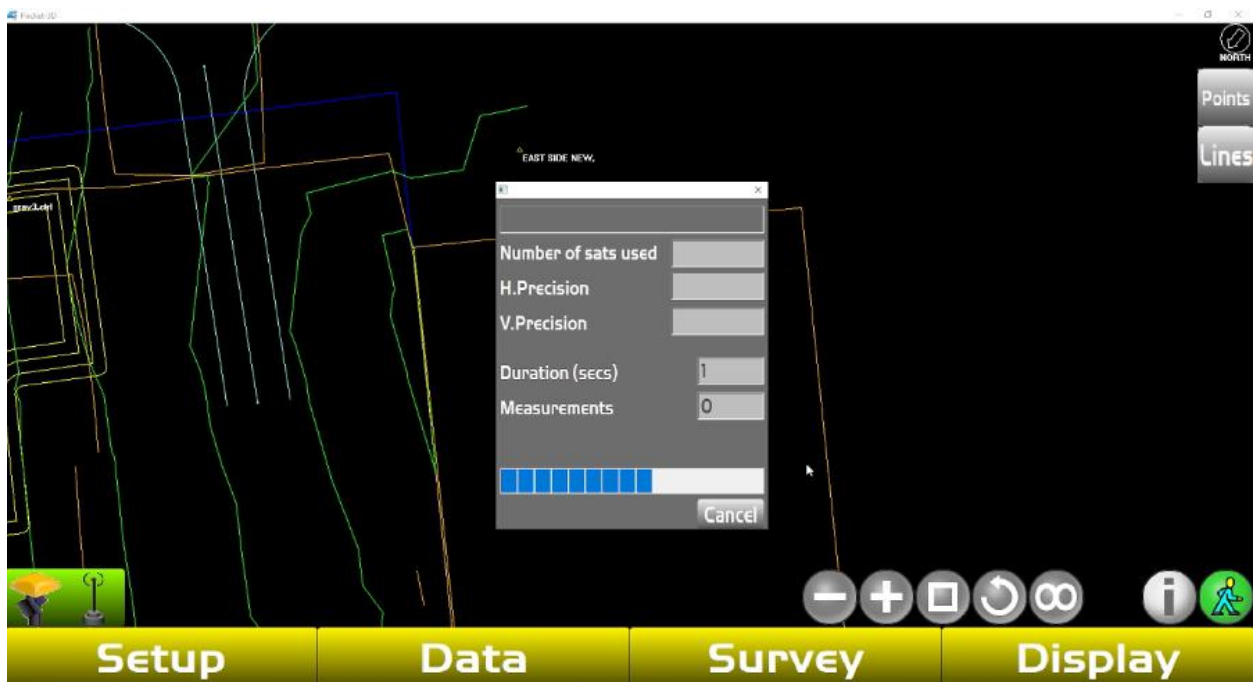
Tap “Ok” to save your settings.



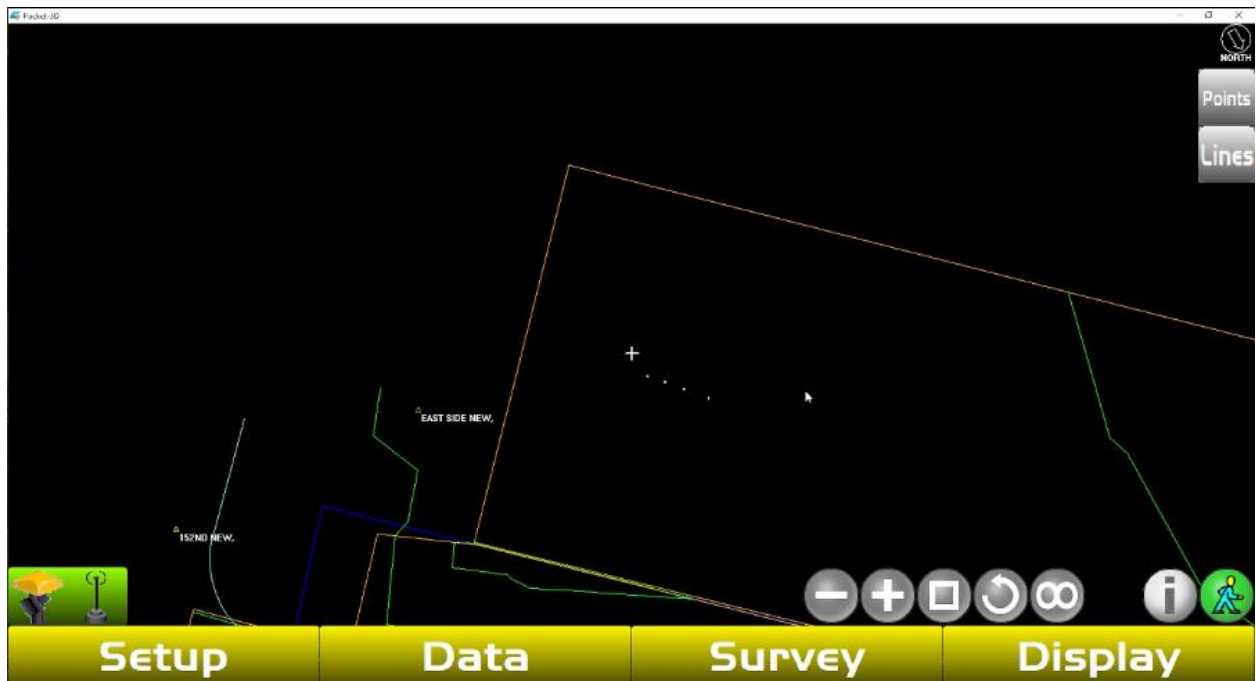
3. A “Lines” shortcut will appear on your screen. Tap on it.



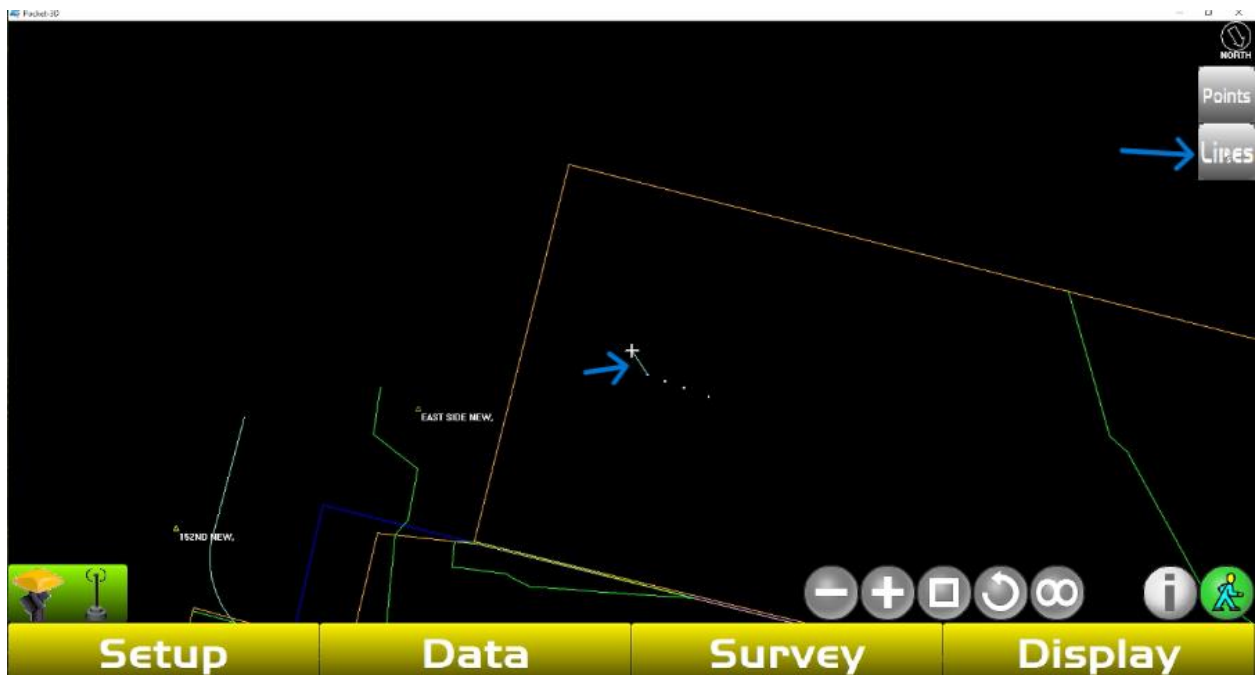
4. Wait for the device to measure the point.



5. Move to your next location to mark the next point.

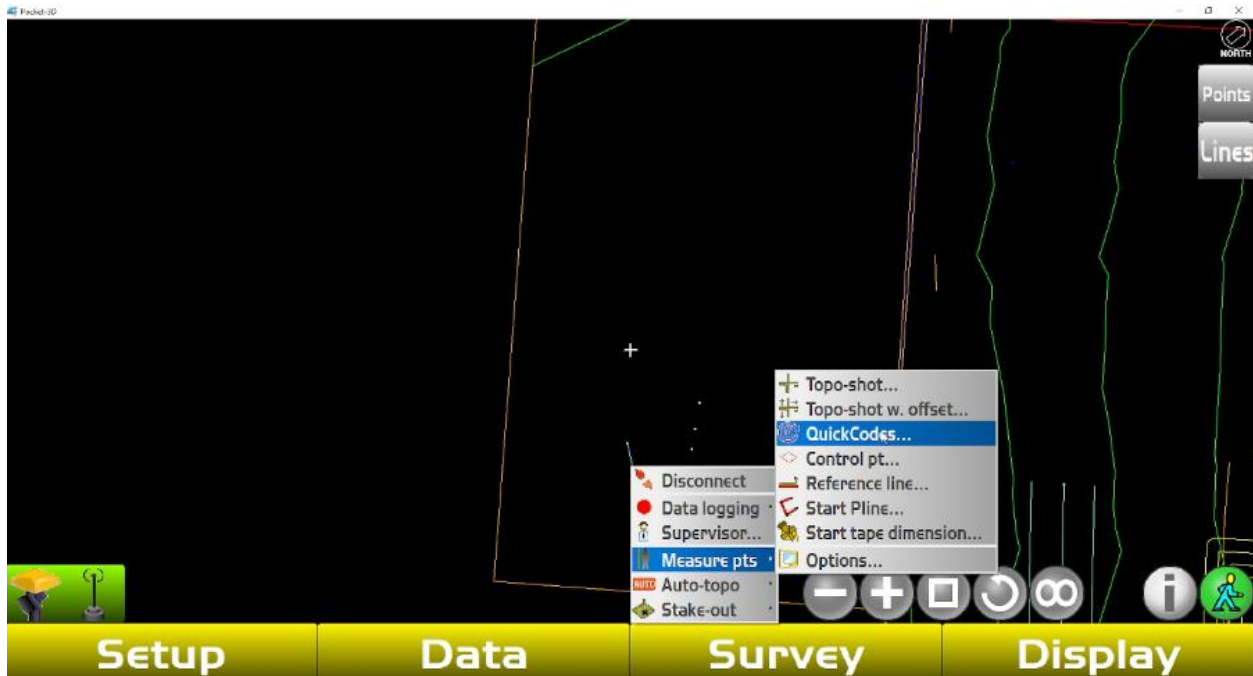


6. Tap the “Lines” shortcut again, and it will create a line between the points you've marked.

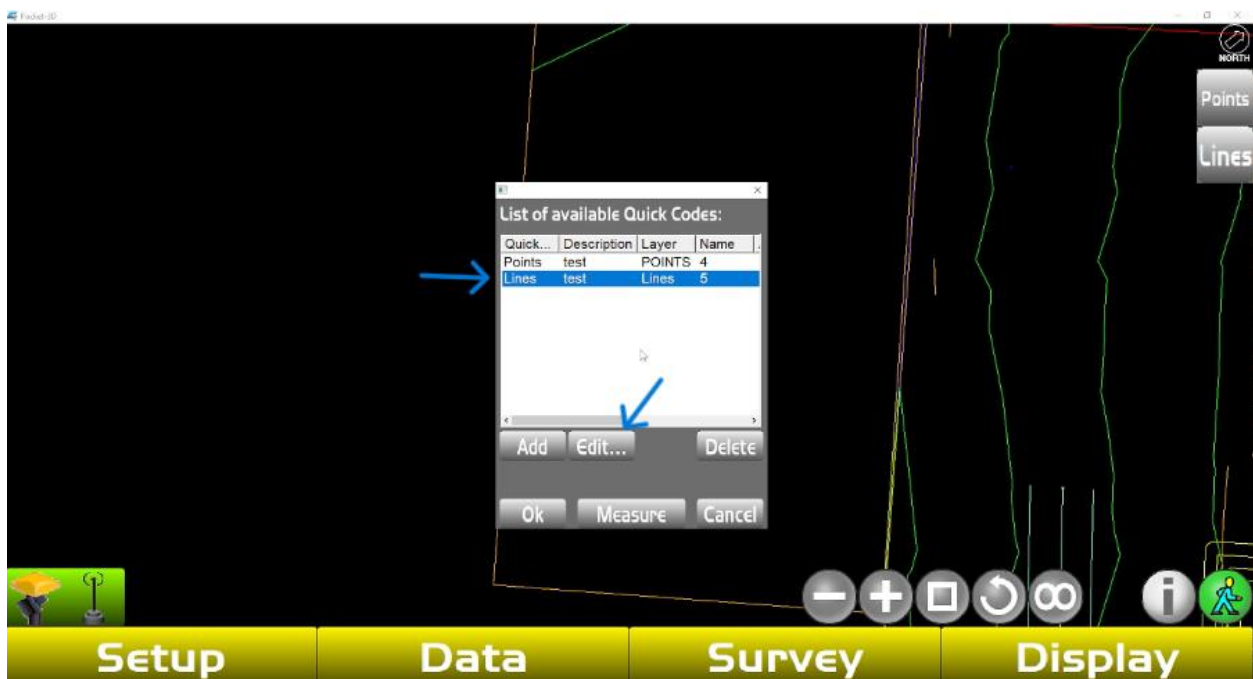


How To Turn Off QuickCode Shortcuts:

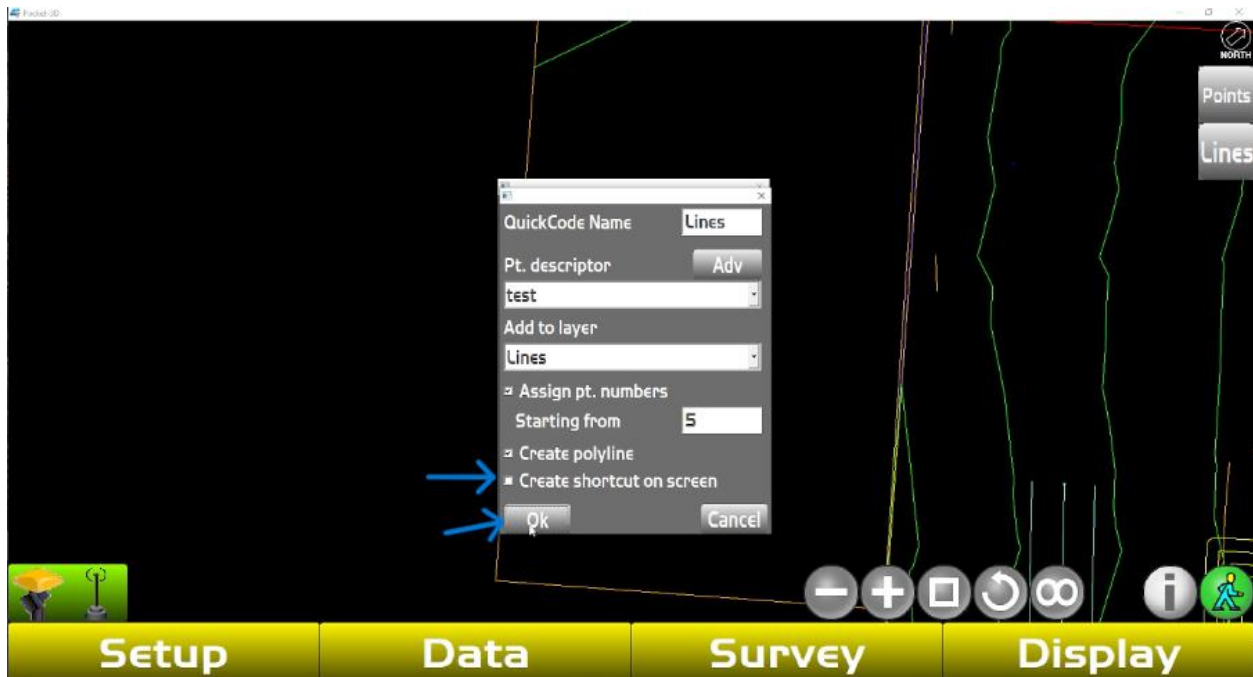
1. Tap "Survey" > "Measure pts" > "QuickCodes..."



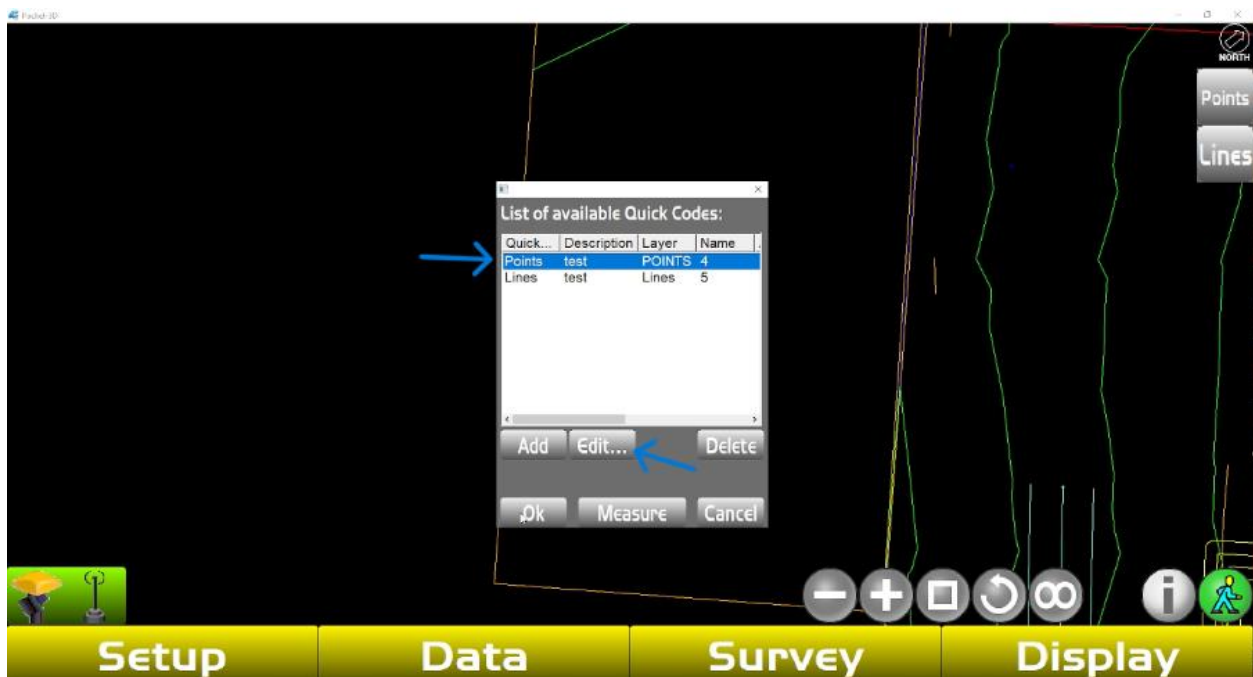
2. Select "Lines" and ensure it is highlighted in blue, then tap "Edit..."



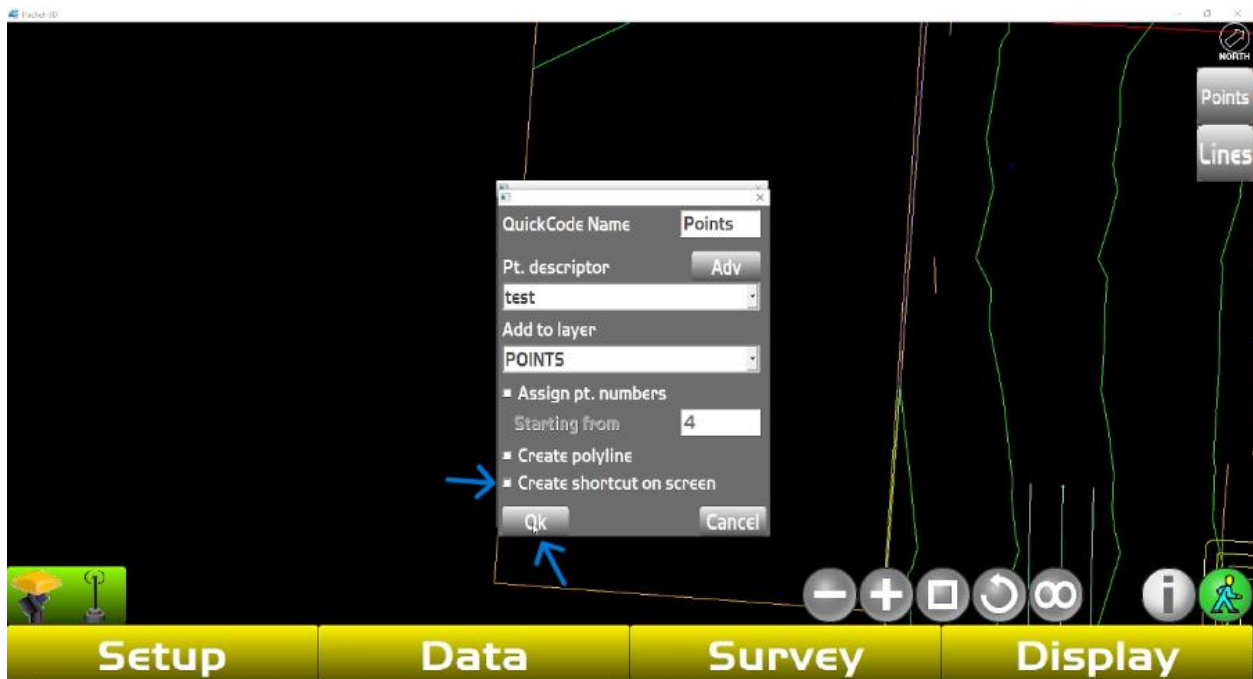
3. Uncheck the “Create shortcut on screen” box, then tap “Ok”.



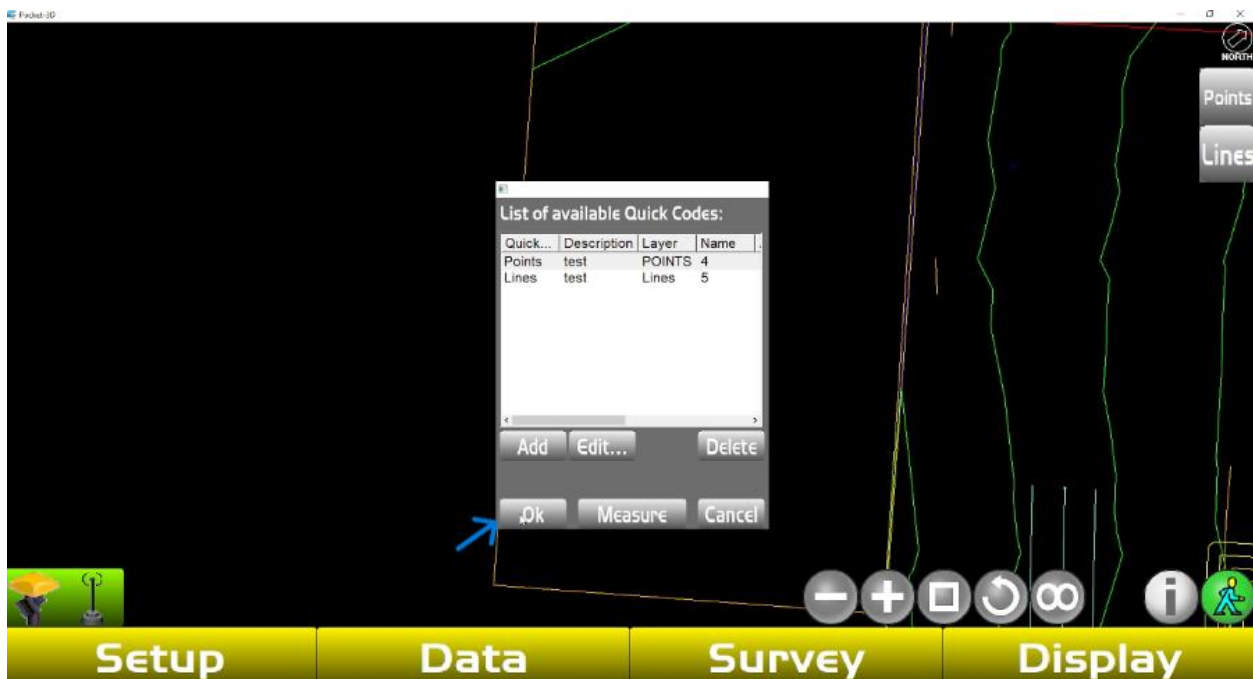
4. Highlight the Points List and tap “Edit...”.



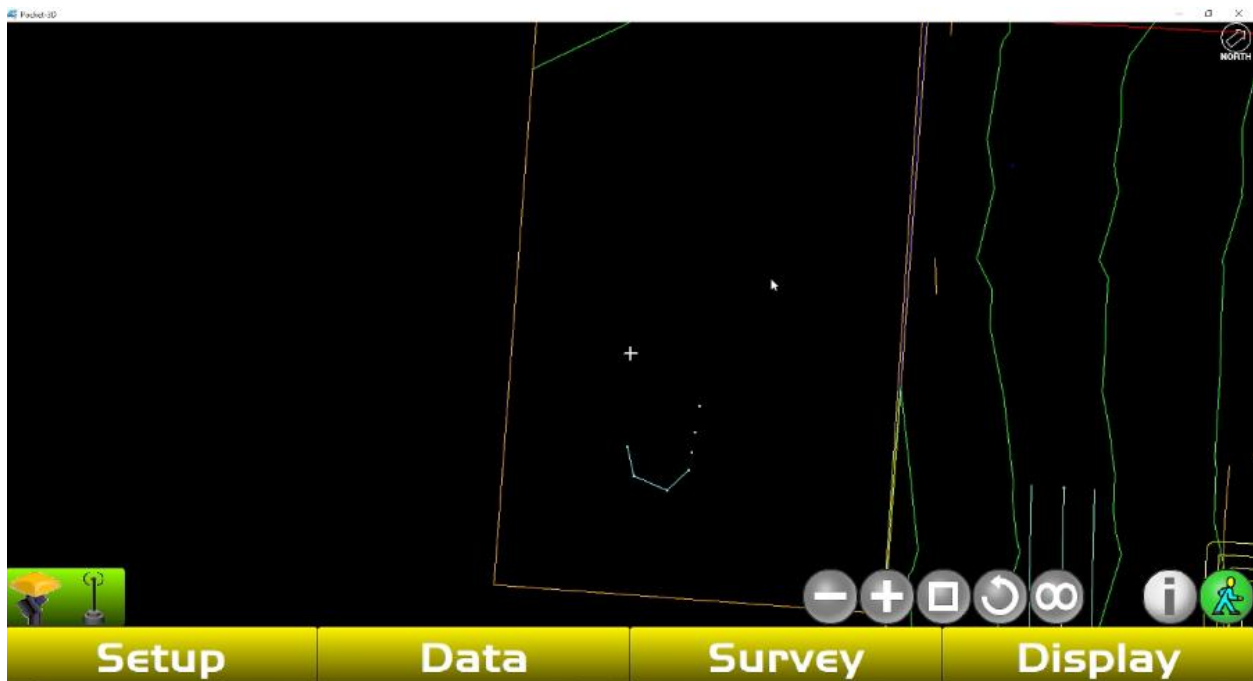
5. Unselect the “Create shortcut on screen” then tap “Ok”



6. Tap “Ok” to confirm

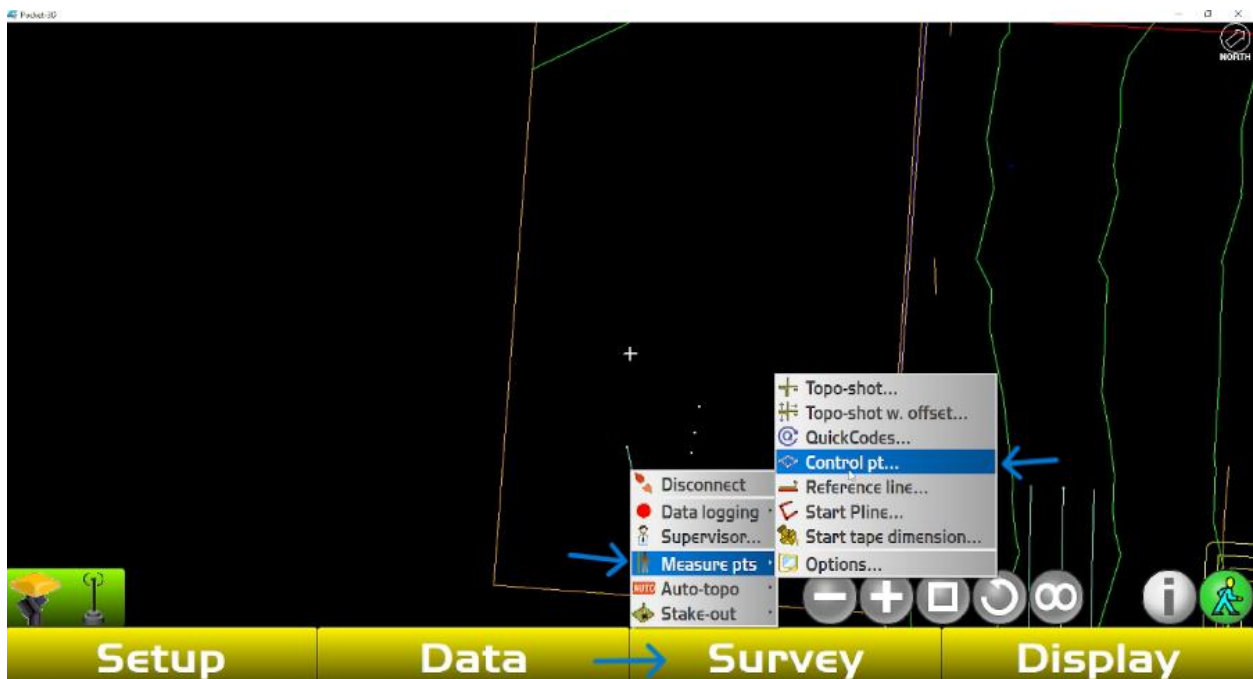


7. The shortcuts will now be disabled.

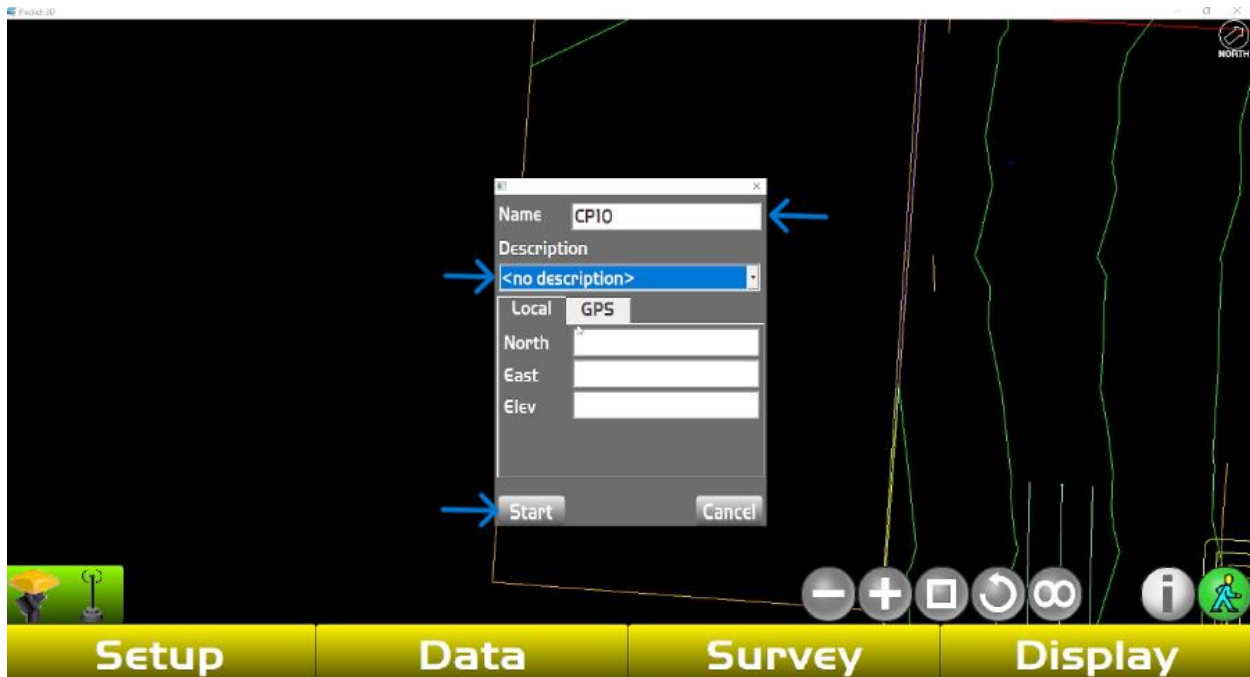


Measuring in a Control Point

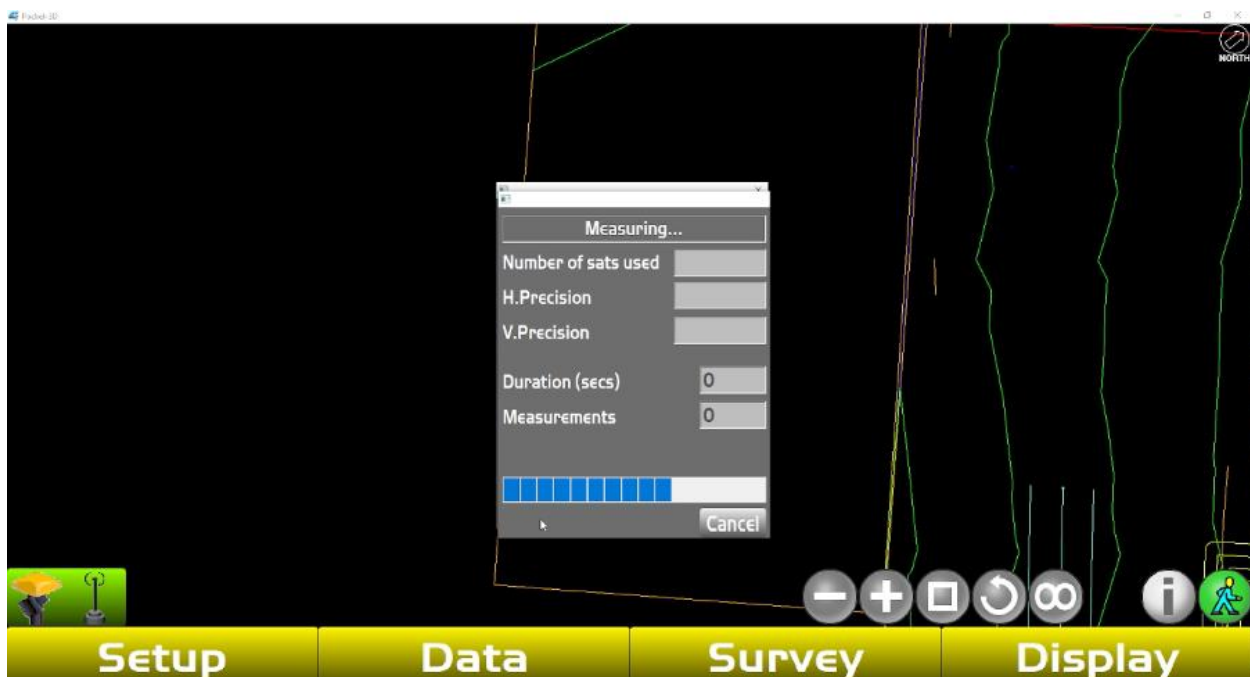
1. Tap "Survey" > "Measure pts" > "Control pt..."



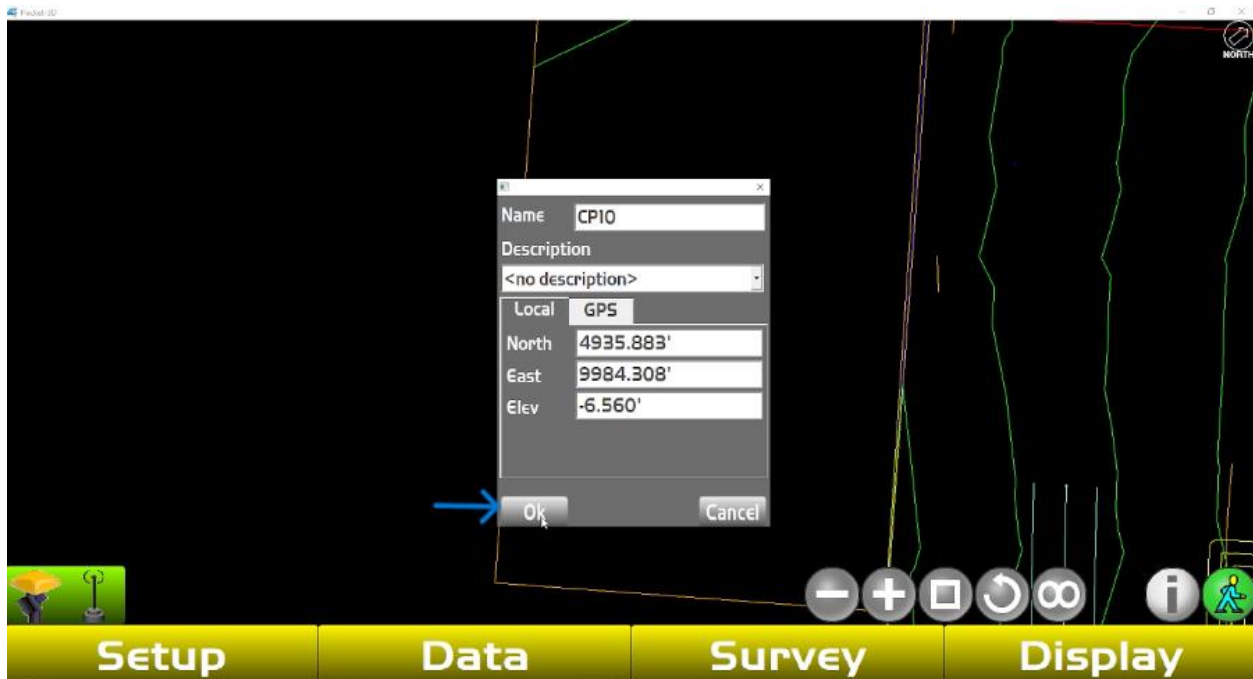
2. Input a name in the “Name” box, then tap “Start”



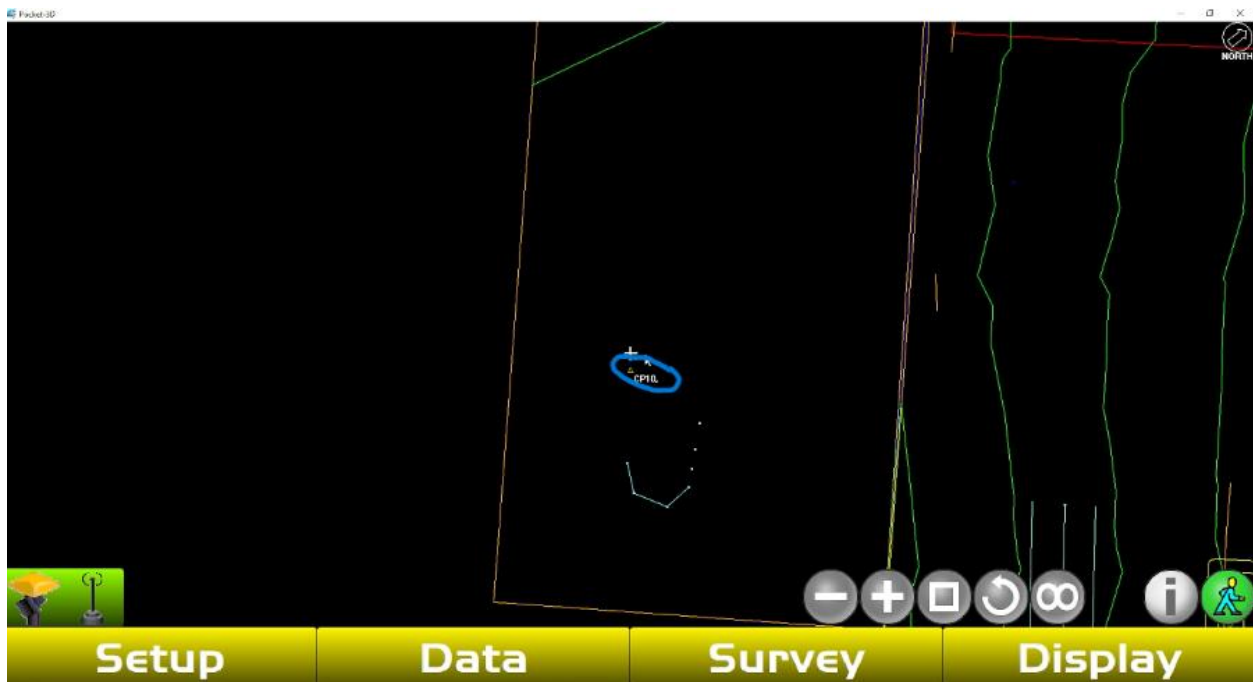
3. Allow the device to complete the measurement. Ensure that the measurement lasts at least 60 seconds for accuracy.



4. Once the measurement is complete, tap “Ok”.



5. Check your map, and you will see the control point displayed in its measured location.

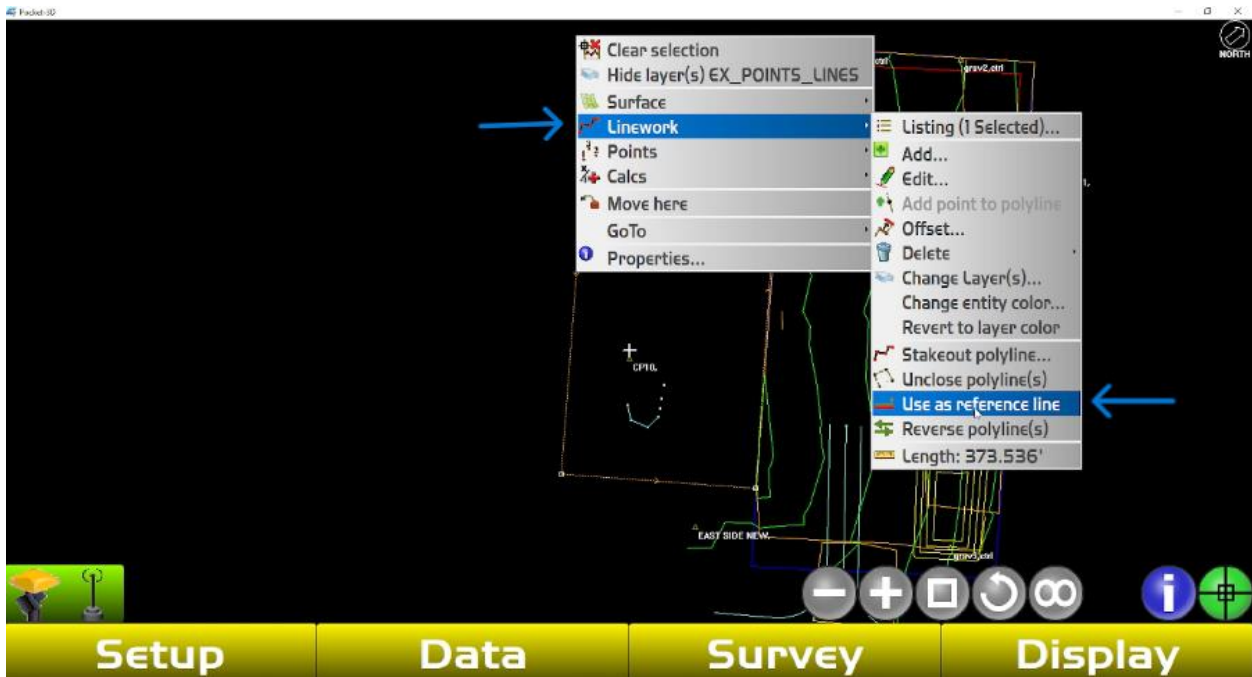


How to Measure in a Point Off of a Line

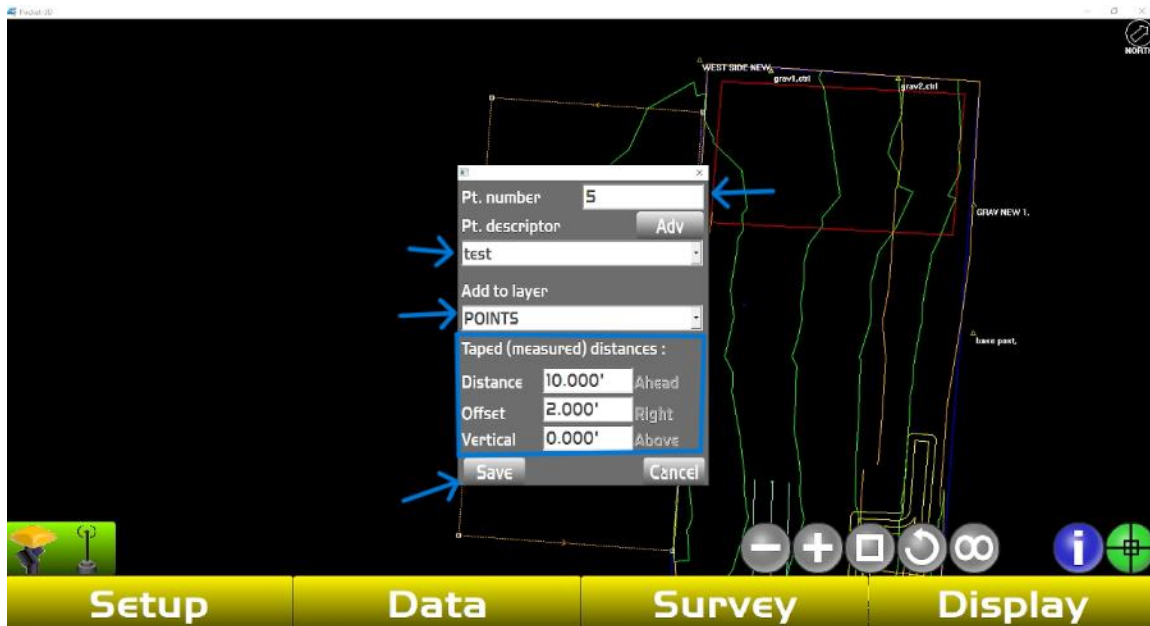
1. In the bottom right make sure the green cross hairs are showing, if not just tap on the green circle to change what mode you are in. now hold and drag, or tap on what line you are going to be selecting.



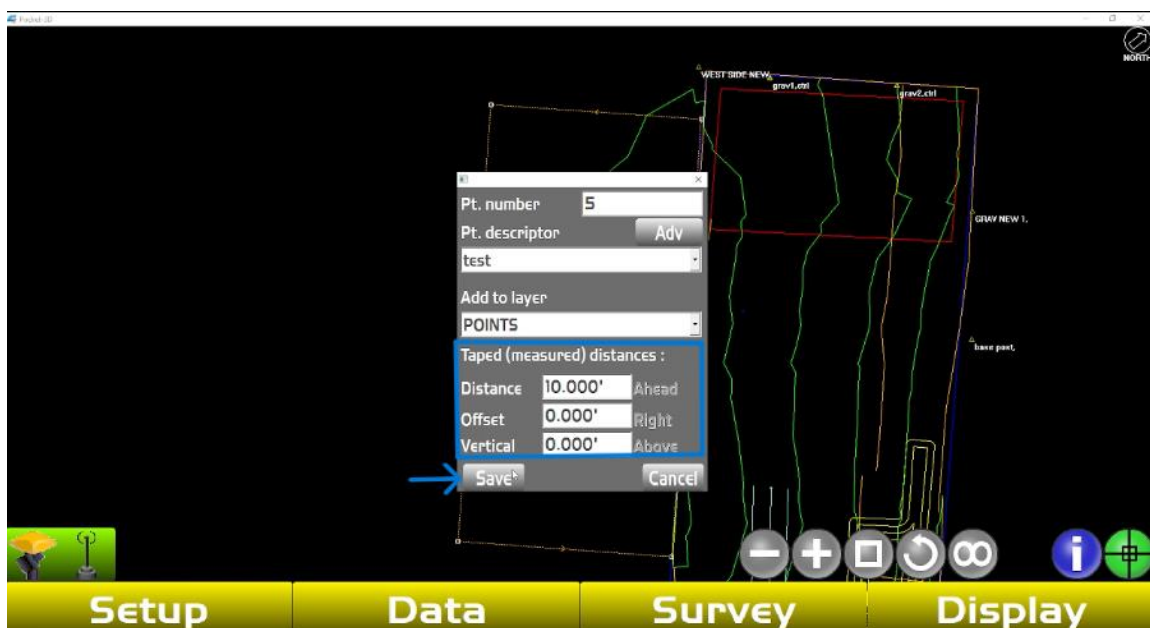
2. Hold Down on the line until the menu pops up, then select **"Linework"** > **"Use as reference line"**



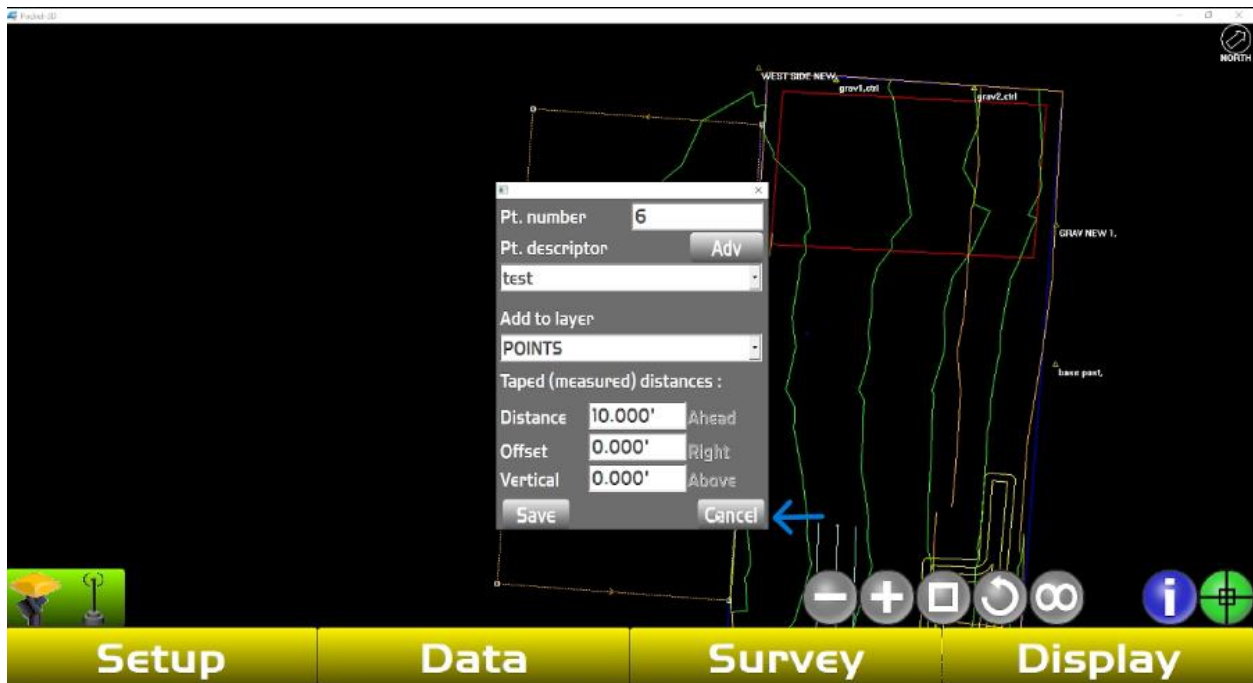
3. In the box to the right of **"Pt. Number"**, enter a point number. If needed, add a **"Pt. descriptor"** for further description. Under **"Add to layer"**, select the appropriate layer for the points.
 - In the box next to **"Distance"**, enter the distance along the line where you want to mark the point.
 - In the **"Offset"** field, input a horizontal offset distance. If you want to add a vertical offset as well, enter a value in the vertical offset box.
4. Tap **"Save"**, and the point will be marked accordingly.



5. Since I'll be marking more than one point for this example, I'll set the **"Offset"** to **0.000** and tap **"Save"** again.



6. Once you are finished making your points, tap “Cancel”

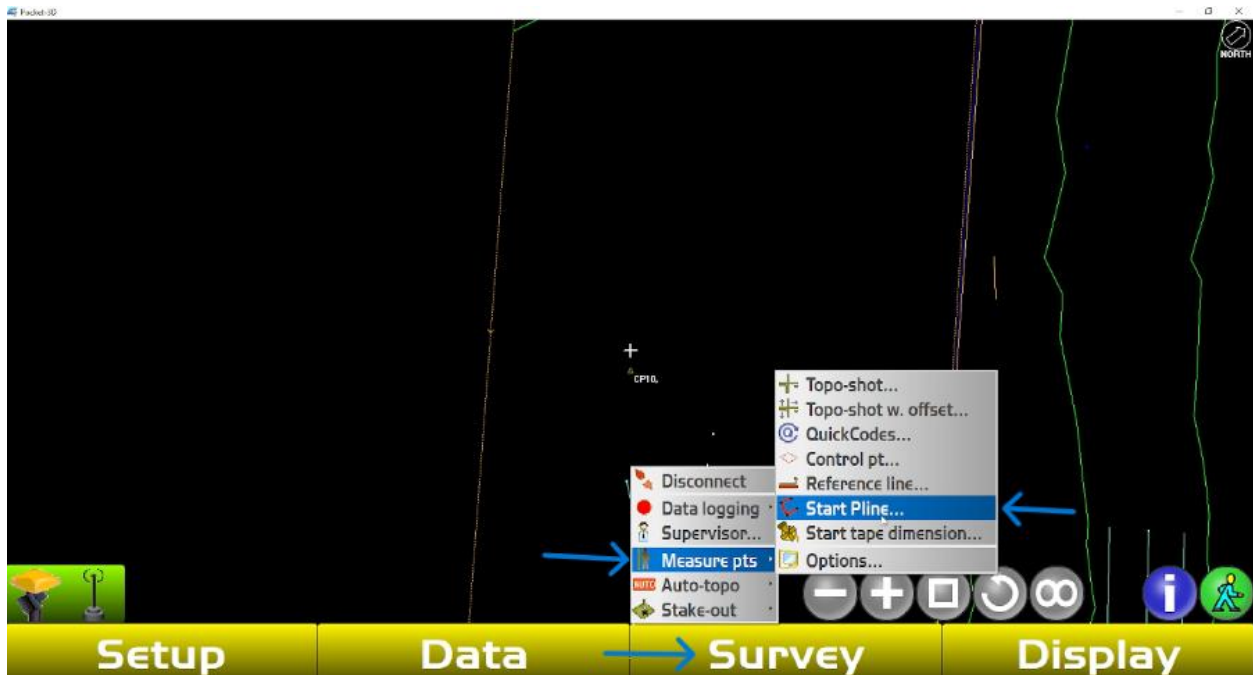


7. You'll now see two white dots on the screen, one represents the point with a two-foot offset, and the other represents the point with no offset.



How to Start Pline/ Measure in a line

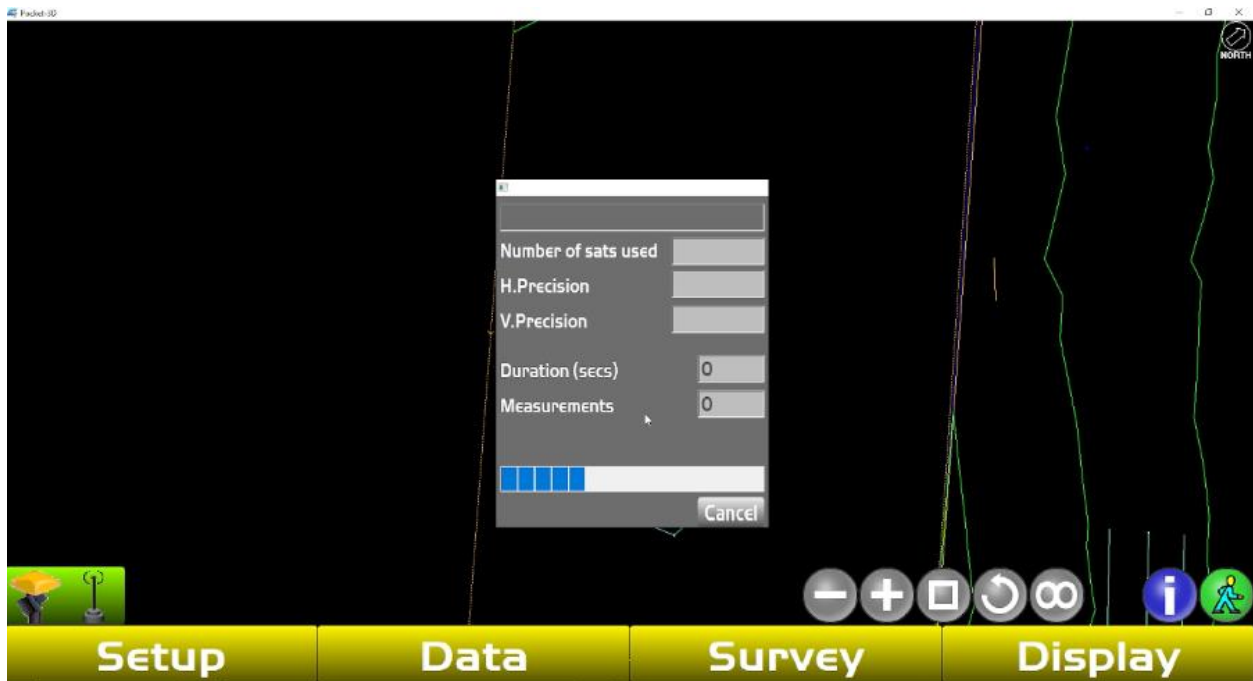
1. Tap "Survey" > "Measure pts" > "Start Pline..."



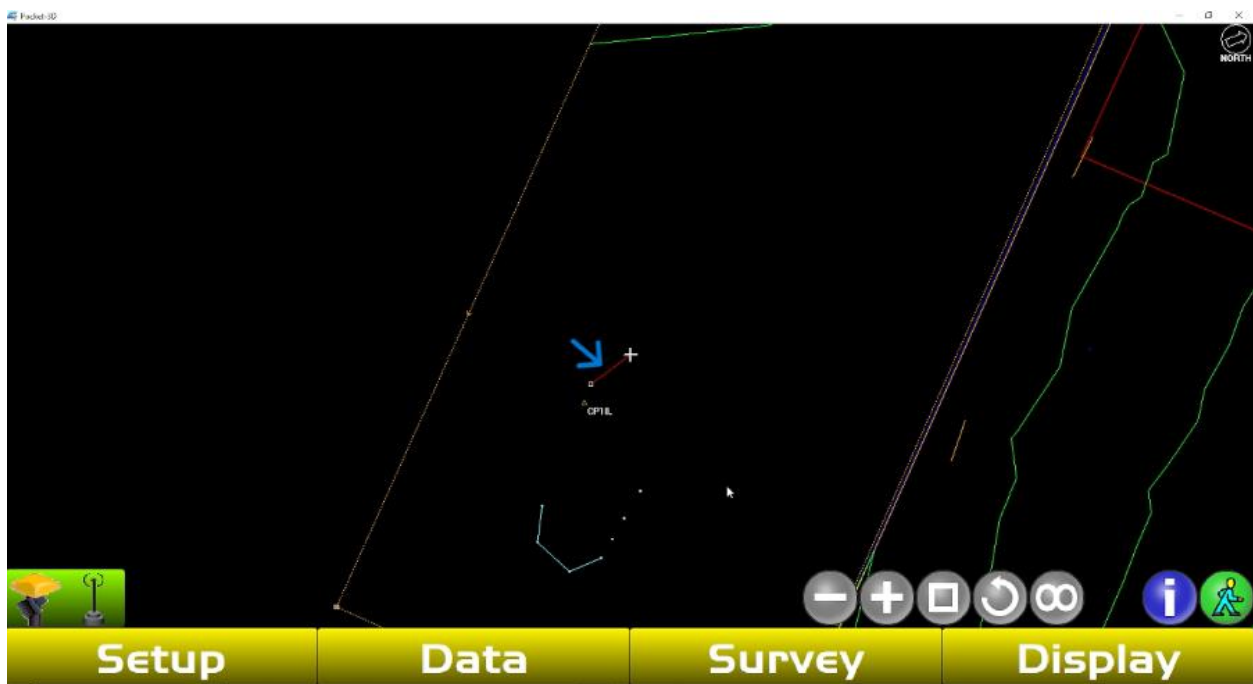
2. Select a layer to add the polyline to, then tap "Ok" to begin measuring.



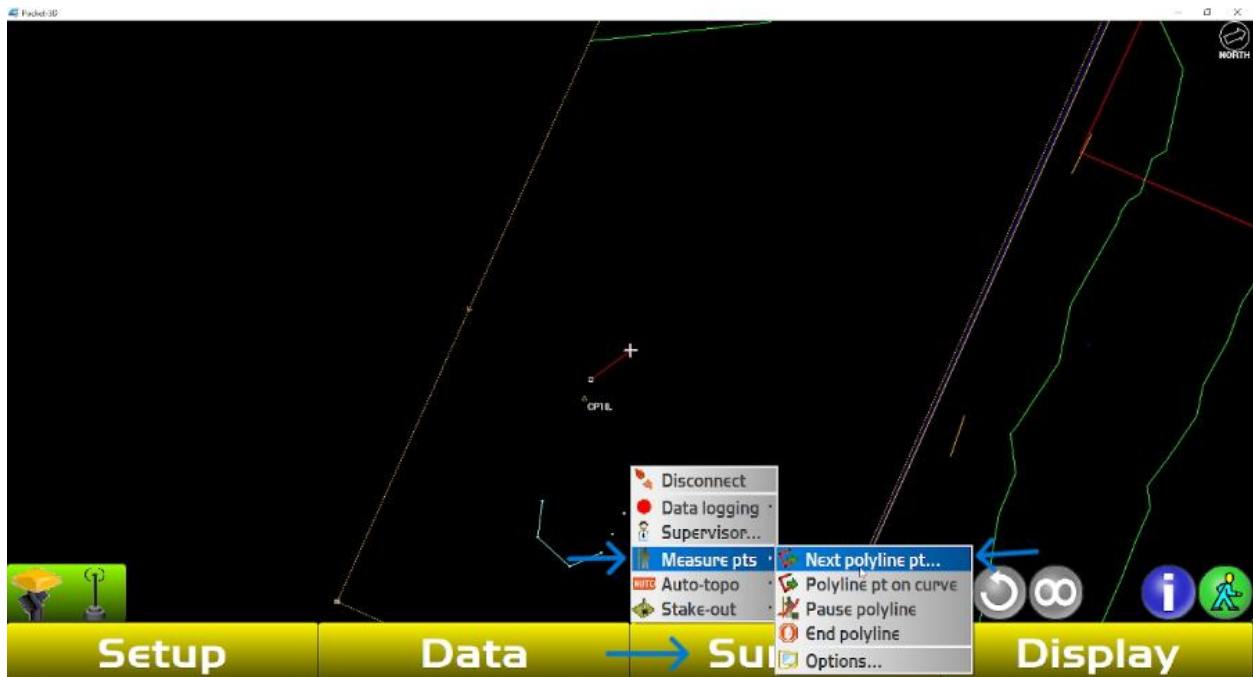
3. Wait for the measurement to complete.



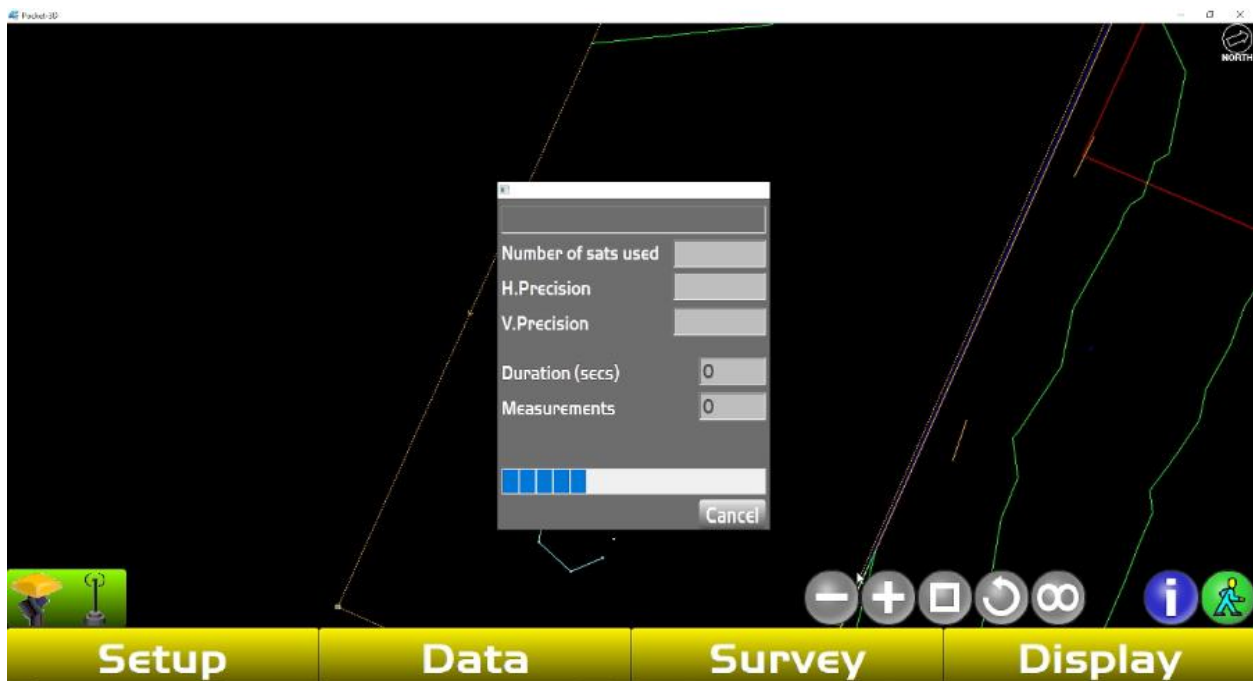
4. Move to your next location to mark the next point.



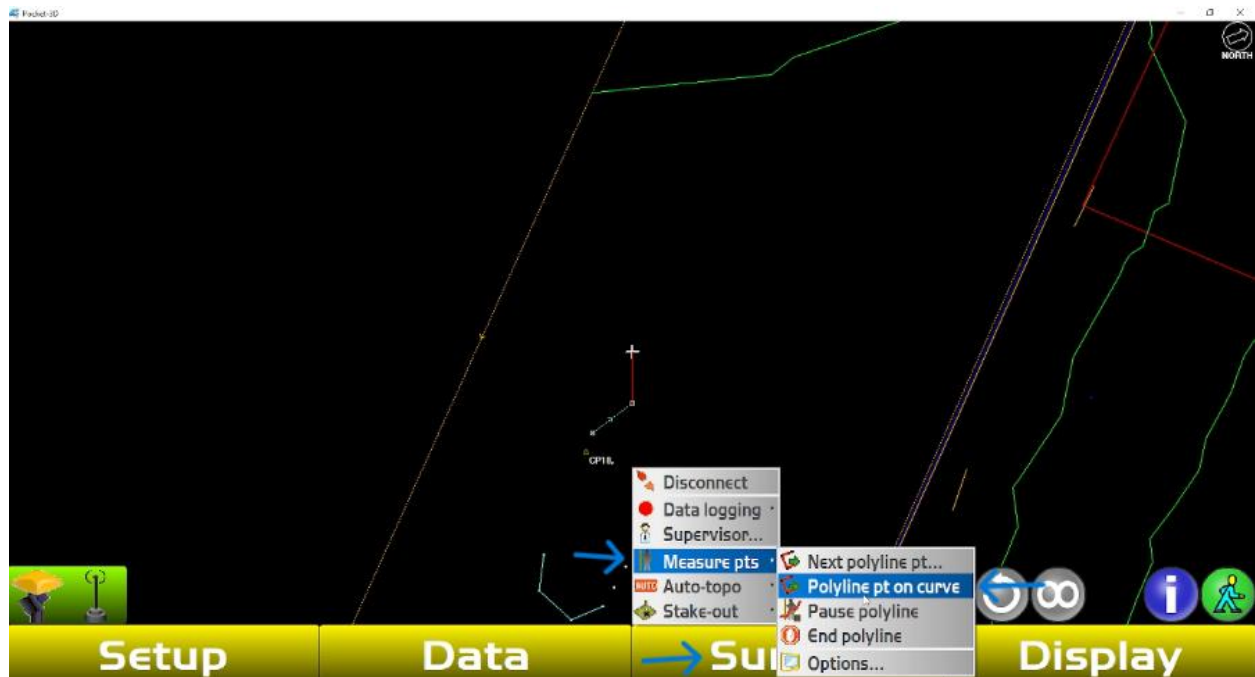
5. Tap "Survey" > "Measure pts" > "Next polyline pt..."



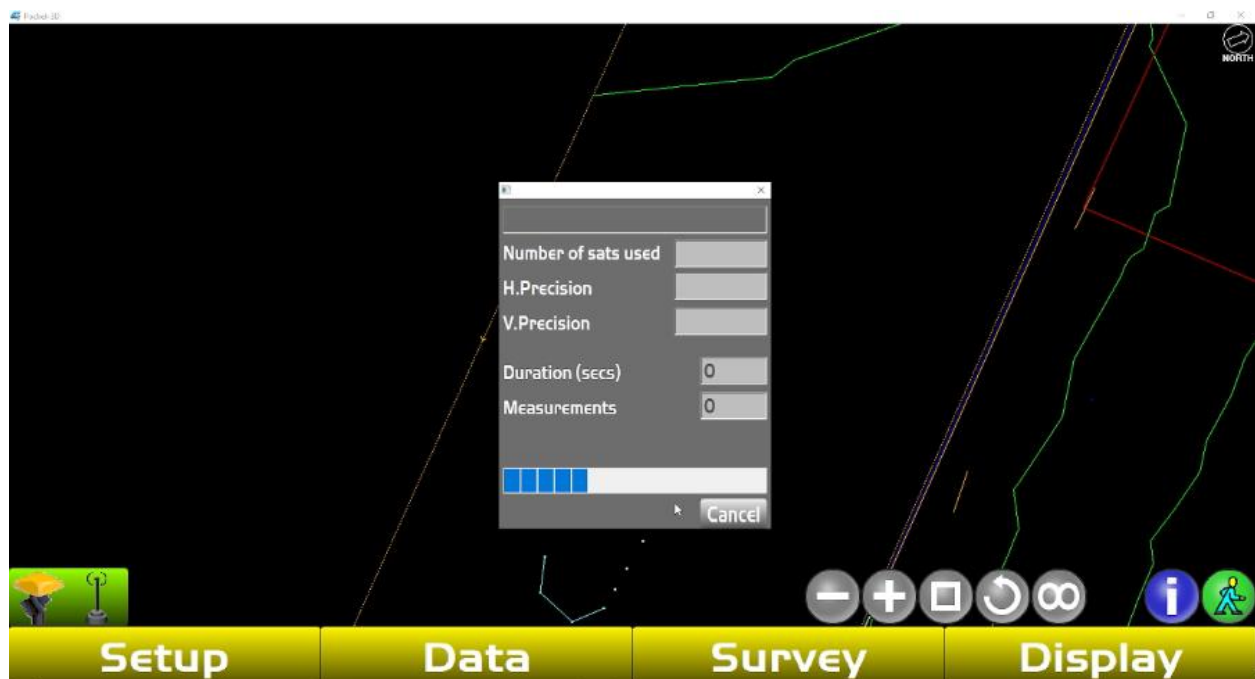
6. Allow the device to complete the measurement.



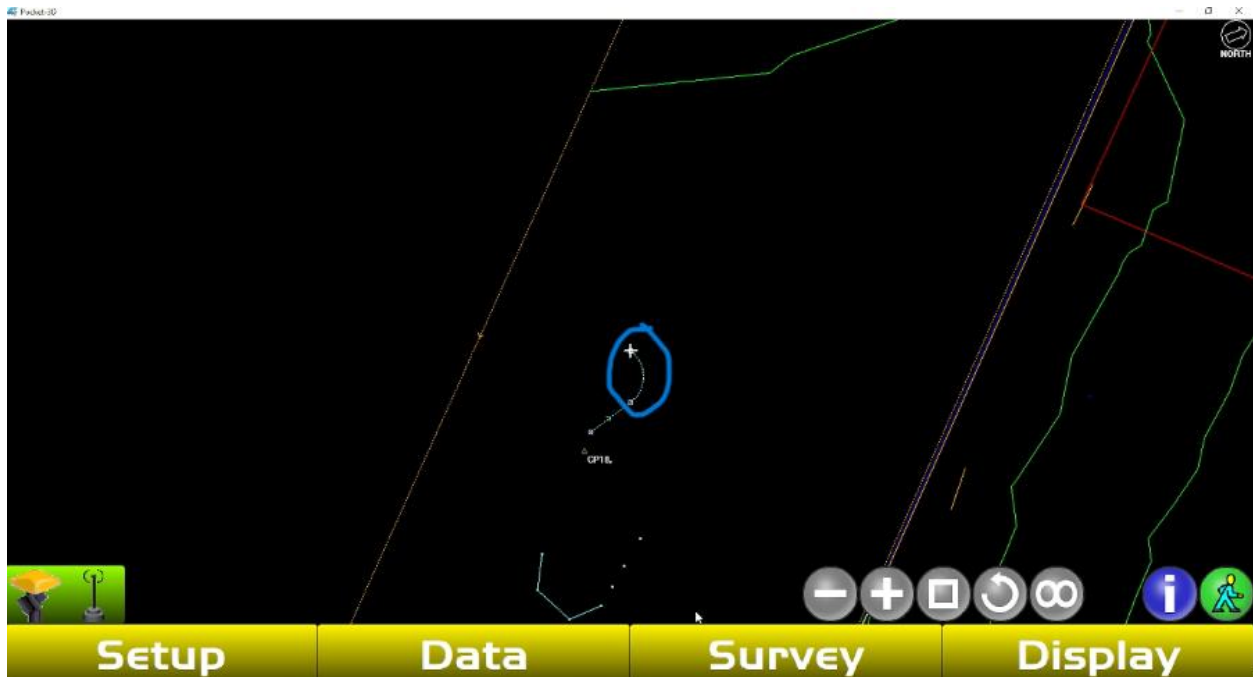
7. Move to your next location. If you want to create a curved line, tap **“Survey” > “Measure pts” > “Polyline pt on curve”**.



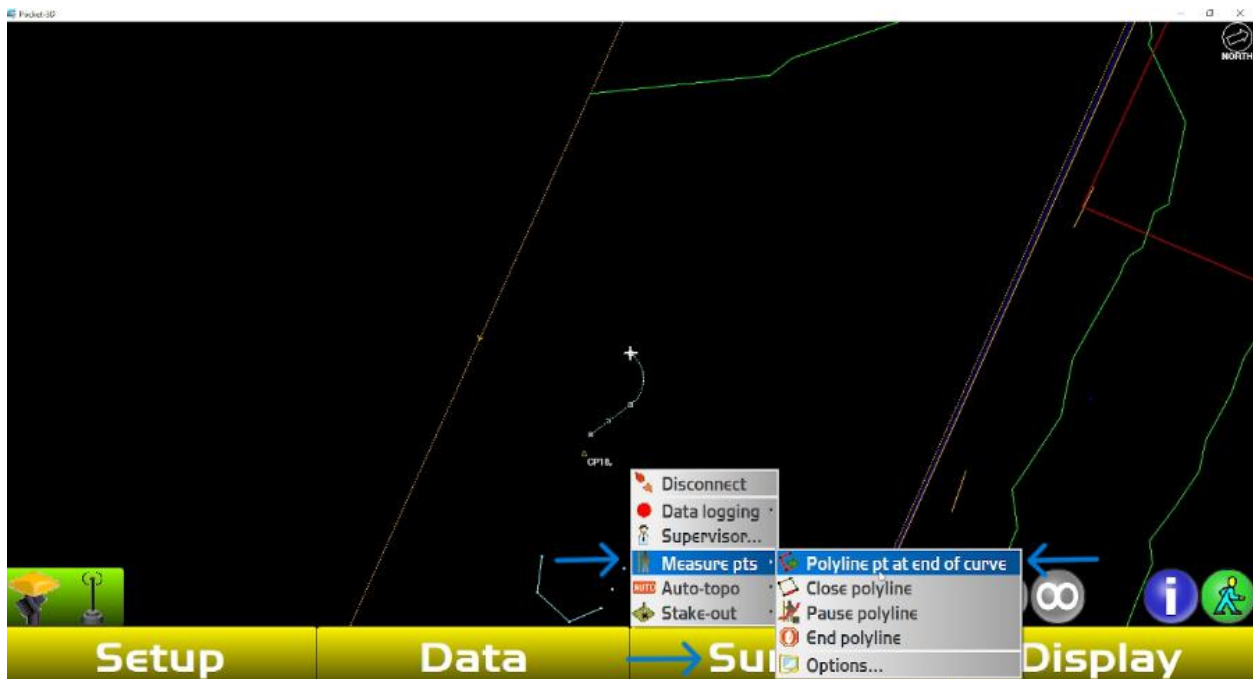
8. Allow the system to measure the curve.



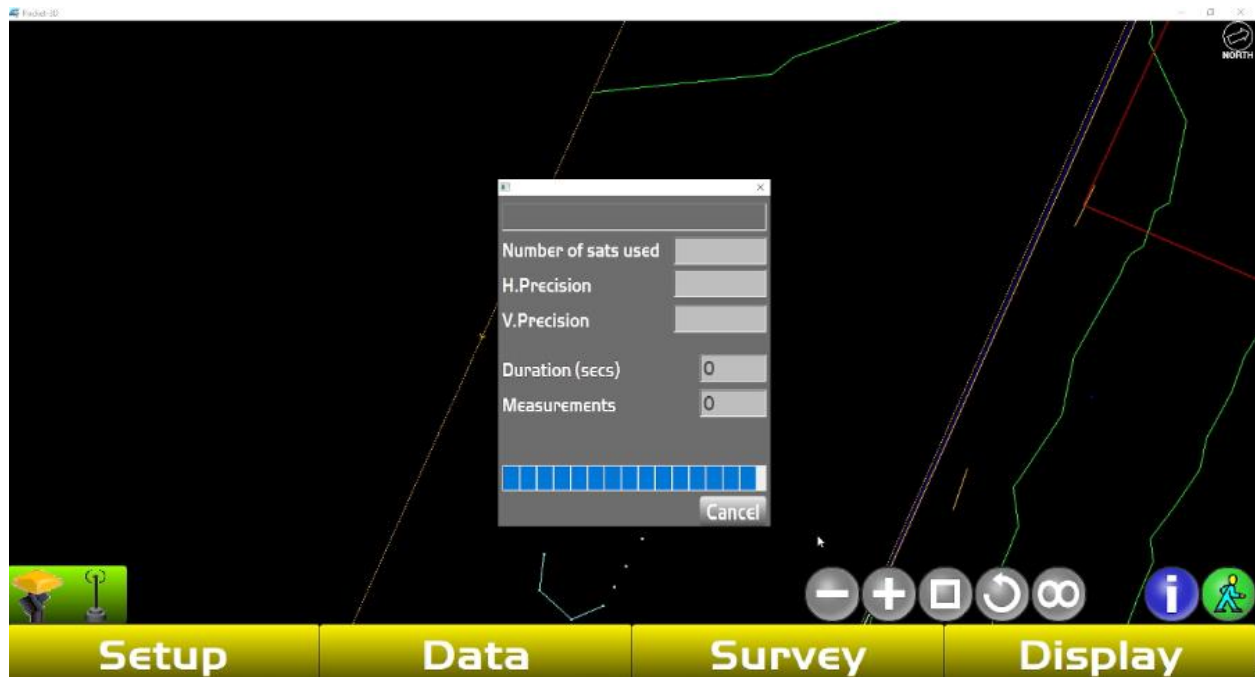
9. The polyline will now have a curve between the points.



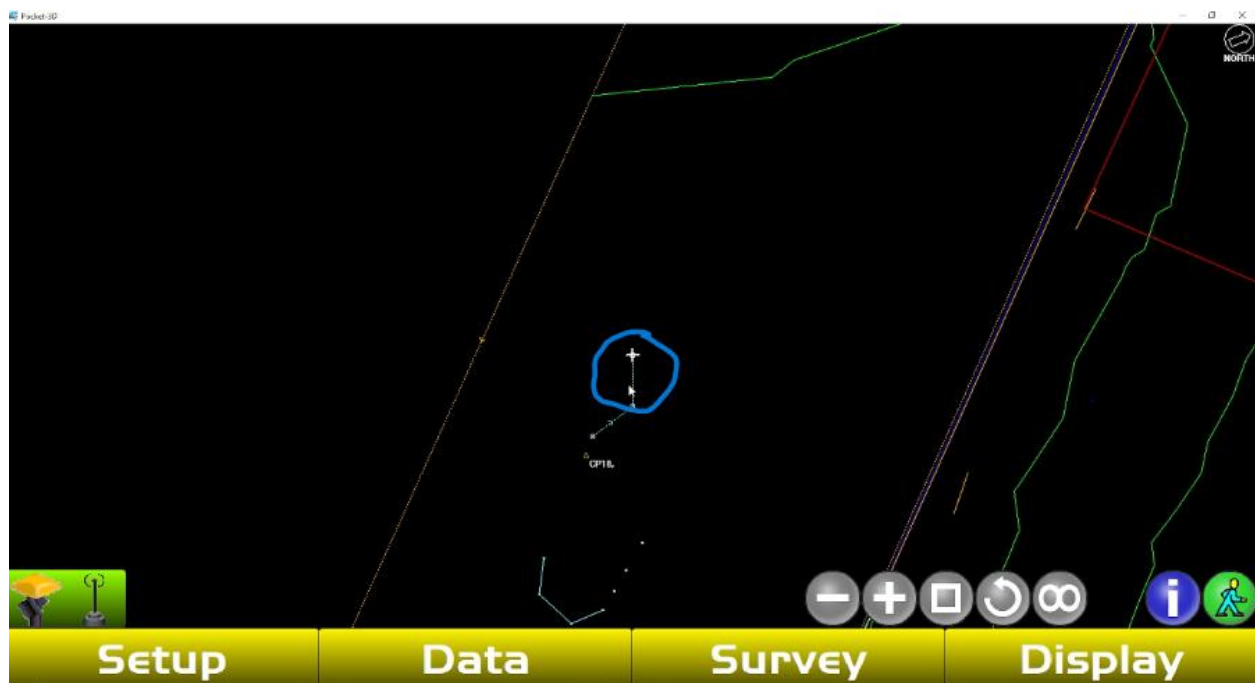
10. To switch back to a straight line, tap “Survey” > “Measure pts” > “Polyline pt at end of curve”.



11. Wait for the measurement to complete.



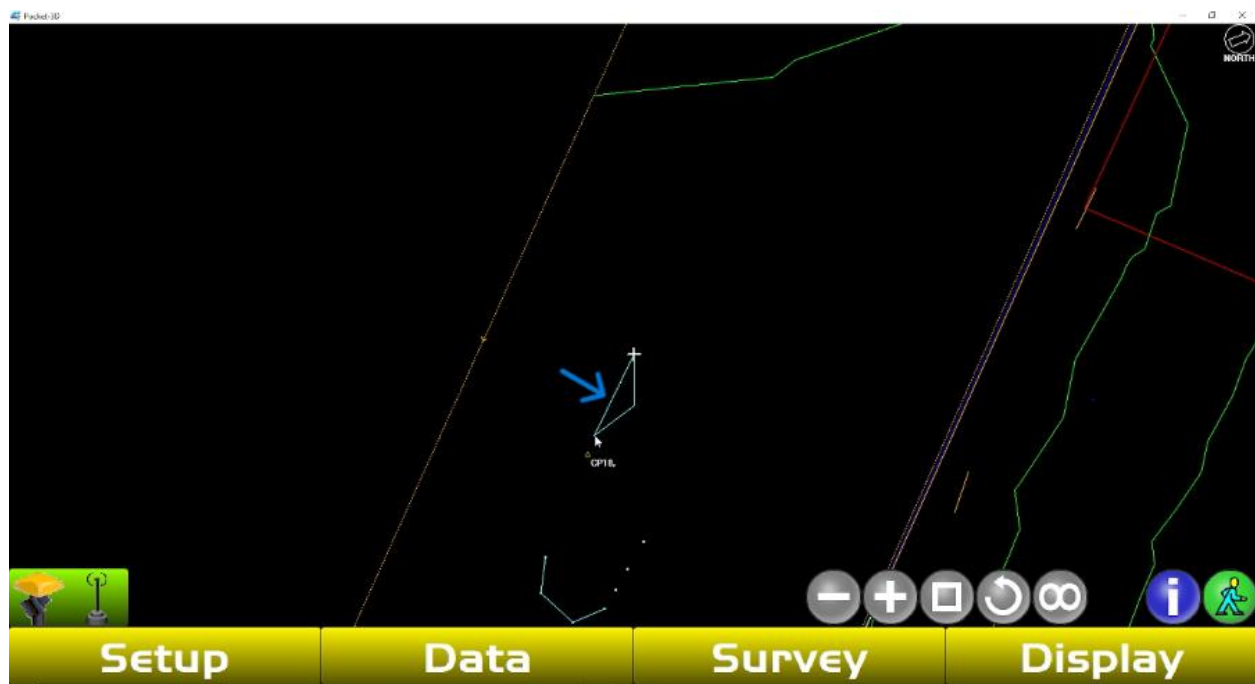
12. The polyline will now be straight again.



13. To close the polyline, tap **“Survey”** > **“Measure pts”** > **“Close polyline”**.

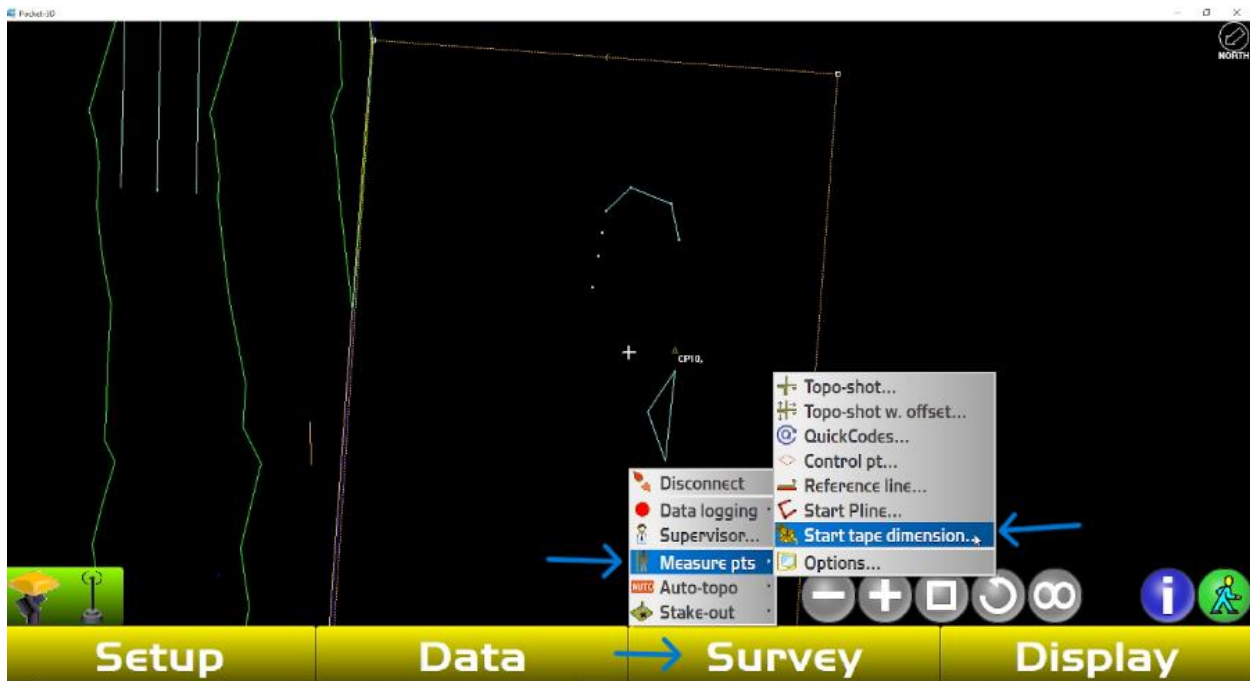


14. The polyline you’ve created will now be closed, and the lines will be connected.

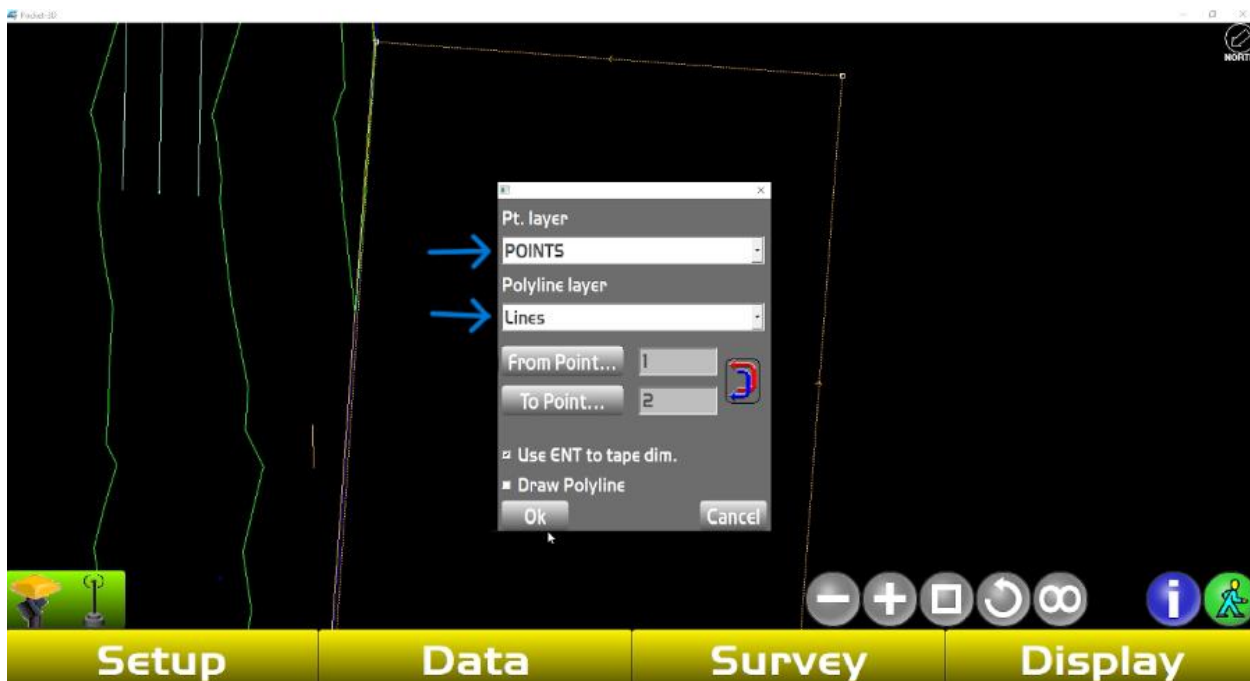


How to Use Tape Dimensions

1. Tap “Survey” > “Measure pts” > “Start tape dimension...”



2. Under “Pt. layer”, select the layer where you want the points to be saved.
 - Under “Polyline layer”, select the layer where you want the lines to be saved.

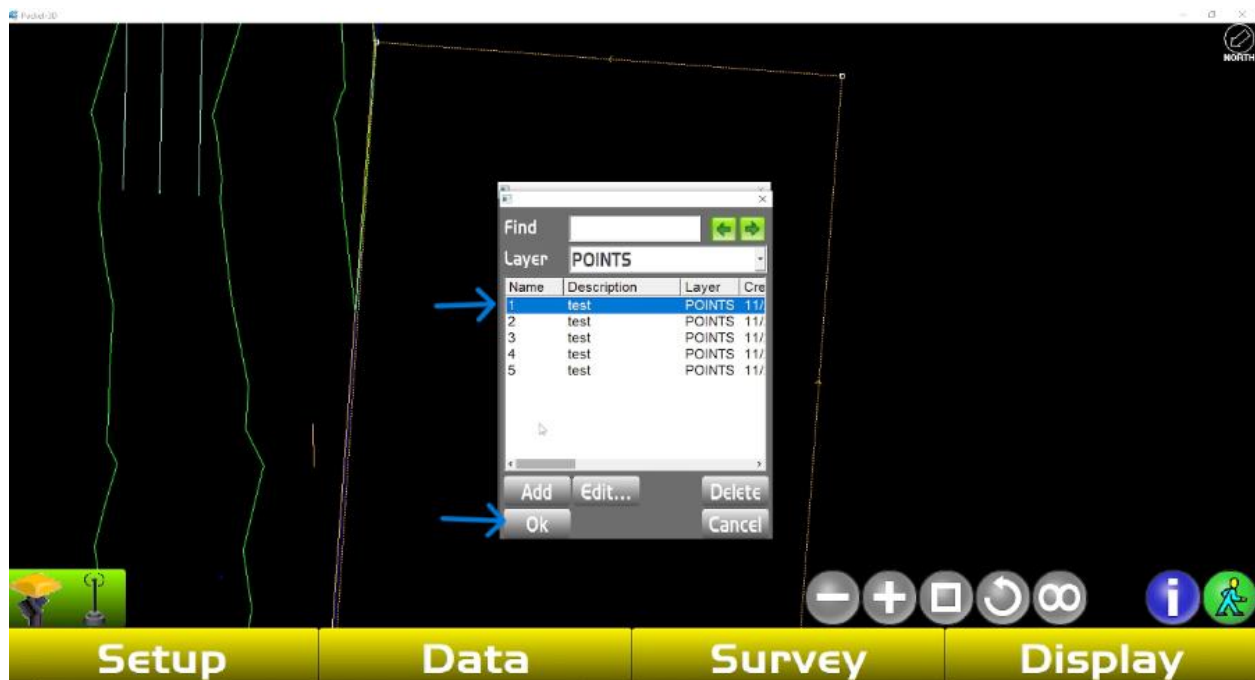


3. The fields “From Point...” and “To Point...” will allow you to select the points for your measurement:

- Tap “From Point...” and select the starting point.

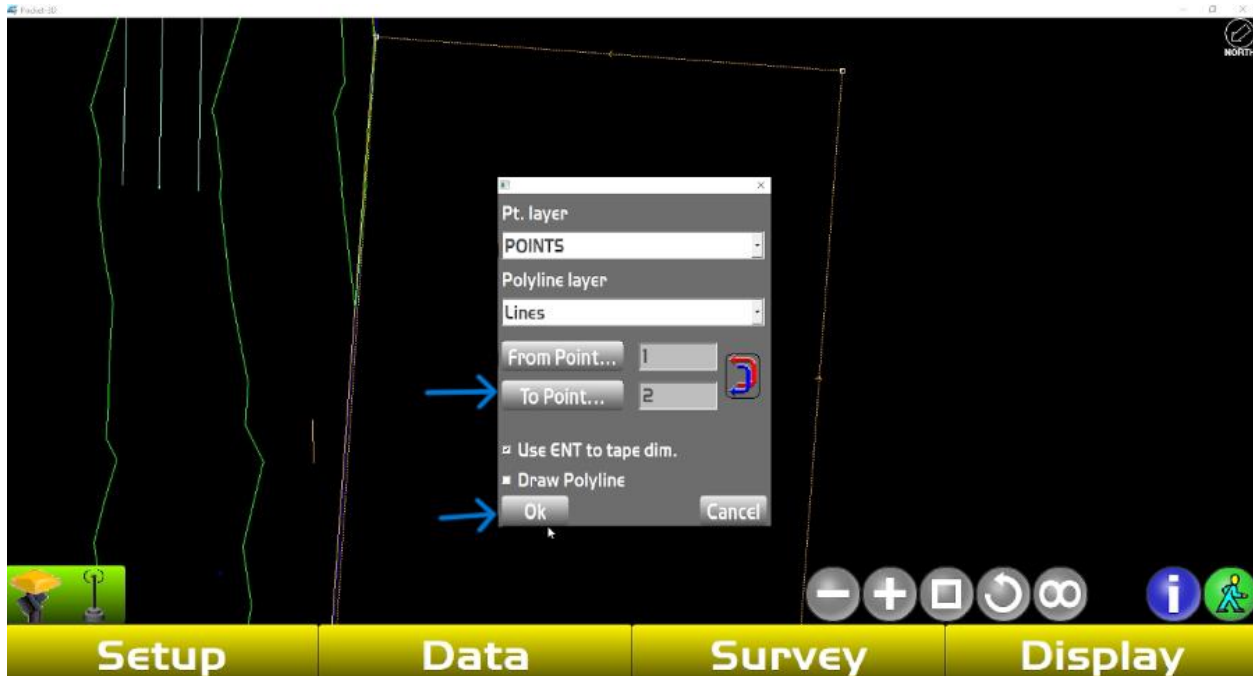


4. Tap the first point you are measuring from, then tap “Ok”.

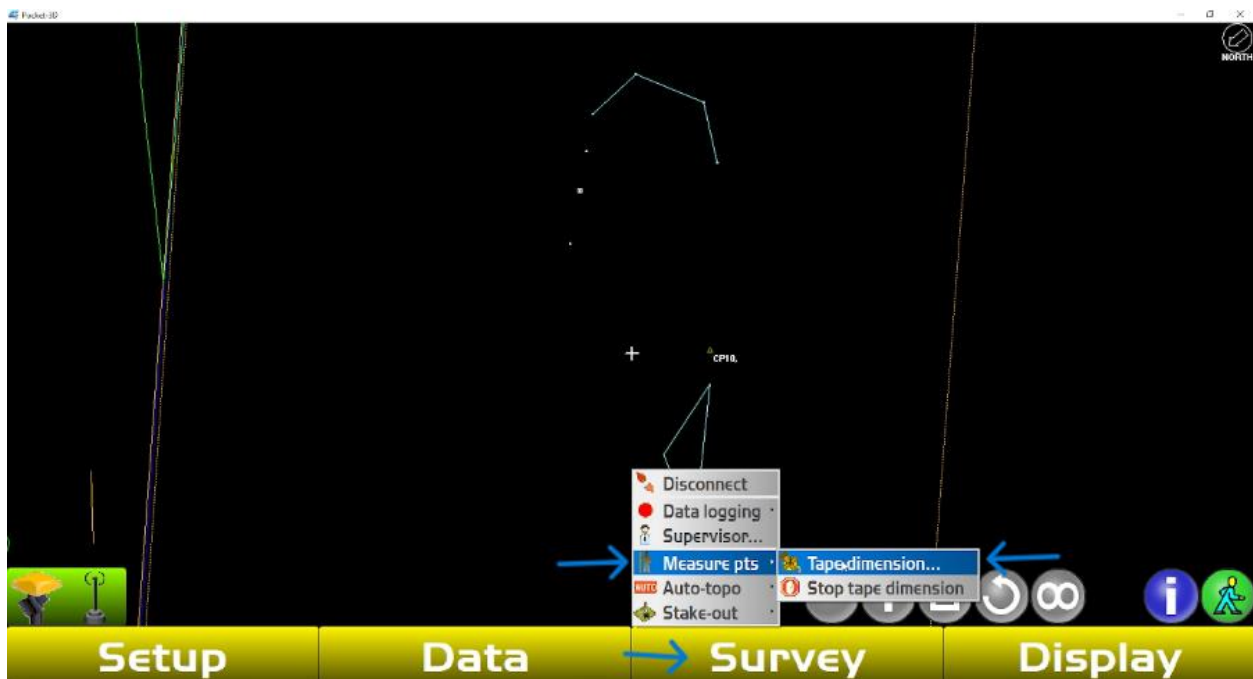


5. Next, tap **"To Point..."** and select the point you will be measuring to.

- If you want to create a polyline from each measurement, check the **"Draw Polyline"** box.
- Tap **"Ok"**.

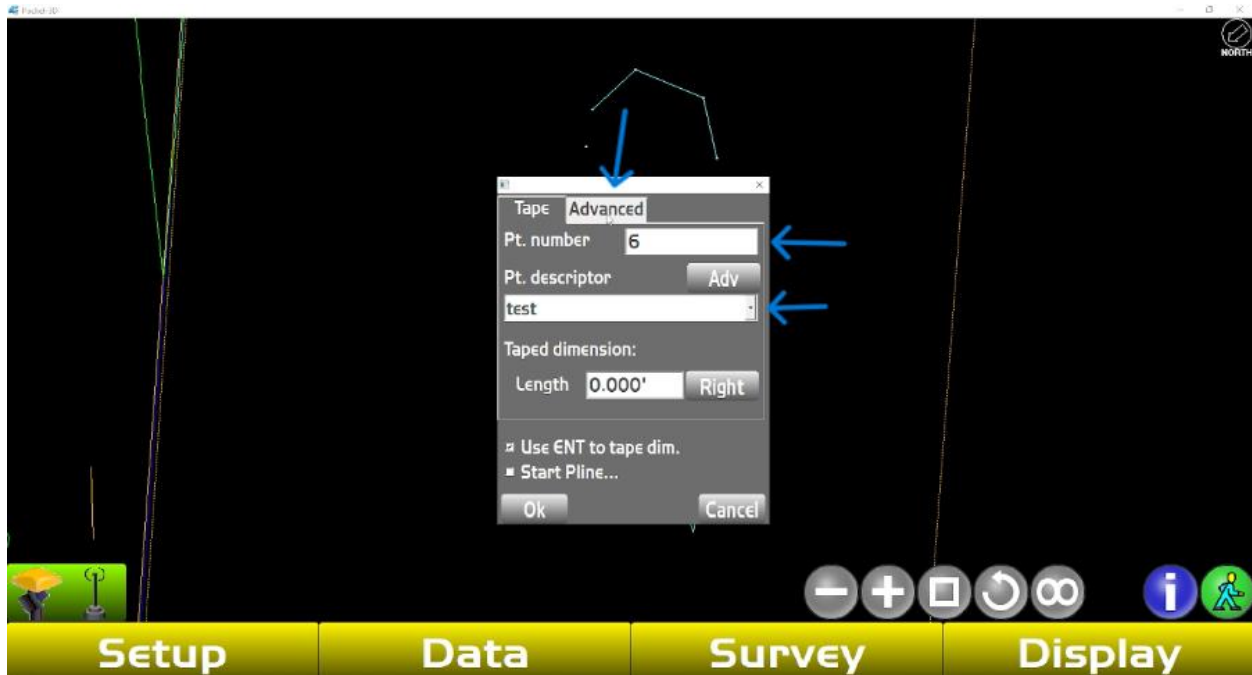


6. Now, tap **"Survey" > "Measure pts" > "Tape dimension..."**.



7. Enter a **“Pt. number”** for the new point and, if needed, add a **“Pt. descriptor”**.

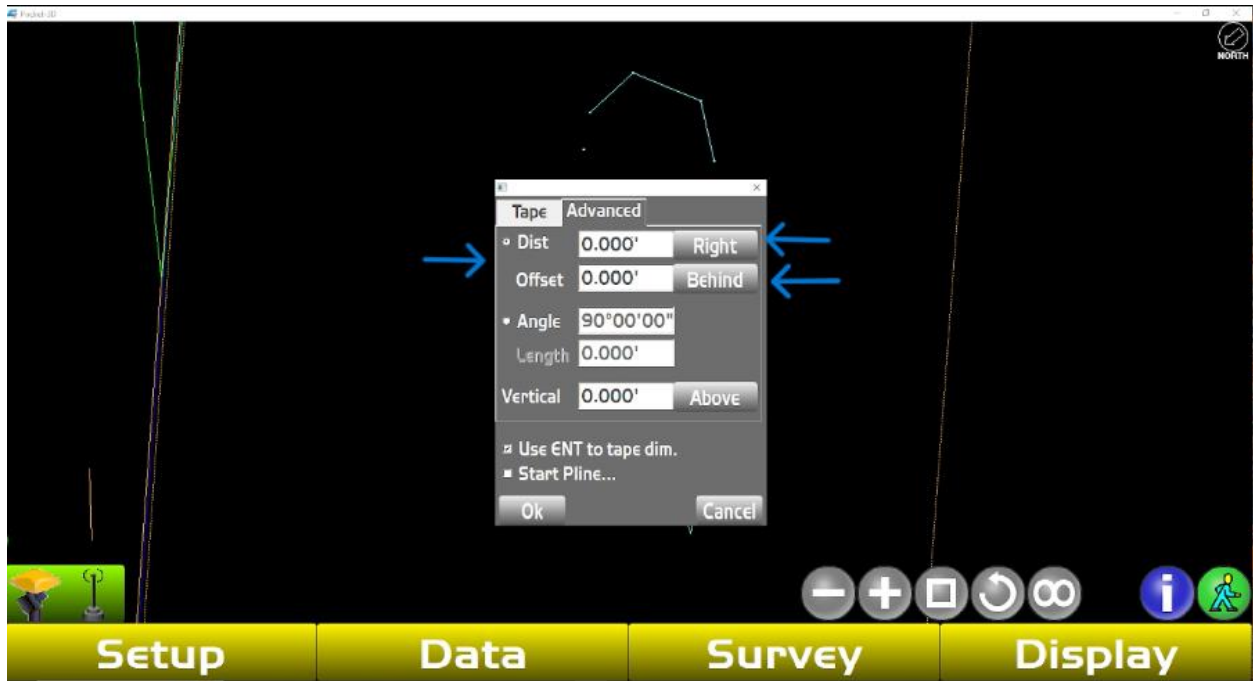
- Tap **“Advanced”** in the top menu to access more measurement options.



8. You have multiple options for defining the location of your new point relative to the reference point:

- **Distance Right or Left:** You can measure a specific distance to the right or left of the reference point along the same line of measurement. This allows you to offset the new point horizontally.
- **Offset Behind or Ahead:** You can also measure a specific distance either behind or ahead of the reference point. This is useful if you want to create a point along a line but offset it in the forward or backward direction.
- **Angle and Length:** If you need a point at a specific angle and distance from the reference point, you can specify both the angle and the length. This will place the new point in the direction defined by the angle relative to the reference point.

By using these options, you can create points based on a previously measured point, making it easier to extend or adjust your survey layout without having to manually measure each location.



9. Enter the **distance** and **offset** values. If you need to adjust the direction (e.g., left, right, ahead, or behind), tap the respective boxes.
 - After entering the values, tap “Ok” to create the point.



10. To continue creating points, repeat steps 6-9 as needed.



11. To stop tape dimensioning, tap "Survey" > "Measure pts" > "Stop tape dimension".



Helpful Reminders:

- **Stay Organized:** Make use of layers and clear point names to keep your measurements well-organized. This is especially useful for large projects.
- **Check for Updates:** Keep your Pocket 3D software updated to enjoy the latest features and improvements.
- **Explore More Features:** Don't hesitate to try advanced functions like offsets, QuickCodes, and polyline measurements to expand your capabilities.

Need Assistance?

If you need further help or have any questions, don't hesitate to contact us. Our support team is here to assist you in making your surveying tasks more efficient and effective. For more helpful guides, FAQs, and tutorials, visit our support page on the website.

5900 NE 152nd Ave. Suite 120 Vancouver, WA 98682

Phone: (360) 571-2346 | Fax: (360) 635-4924 - Email: info@4equipment.com