



IMS EvidenceRecorder

Evidence Recorder Quick Start Guide:

This Workflow Guide outlines the recommended procedure when returning to a scene continuing to measure with either a total station or a network GPS.



Important Preparation Steps:

Before you begin, you must have:

1. A total station or a GPS set that allows you to continue working.
2. Understanding the basics such as project setup, instrument connection and point measurement.
3. Minimum of three existing control points that has be establish previously and have been stored in the EVR project.

If You are using a total station:

Locate the three control points on the ground.





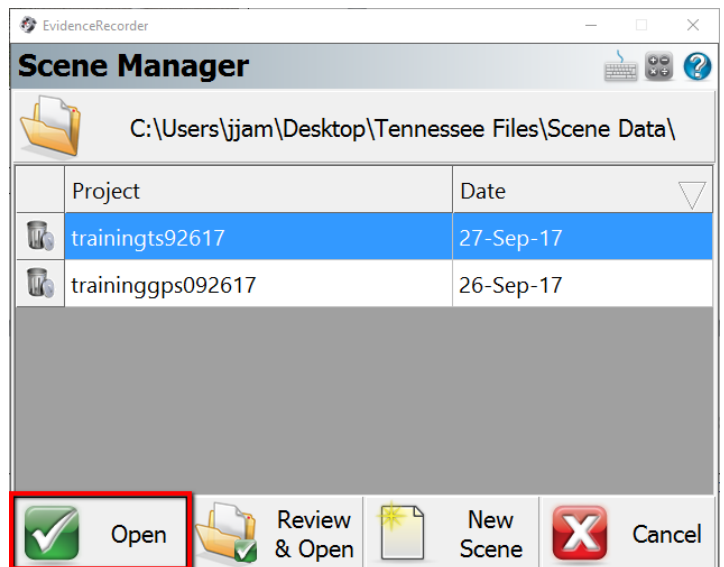
IMS EvidenceRecorder

Set up the instrument at the location where you can see all two control points as well as the entire scene you're about to measure.



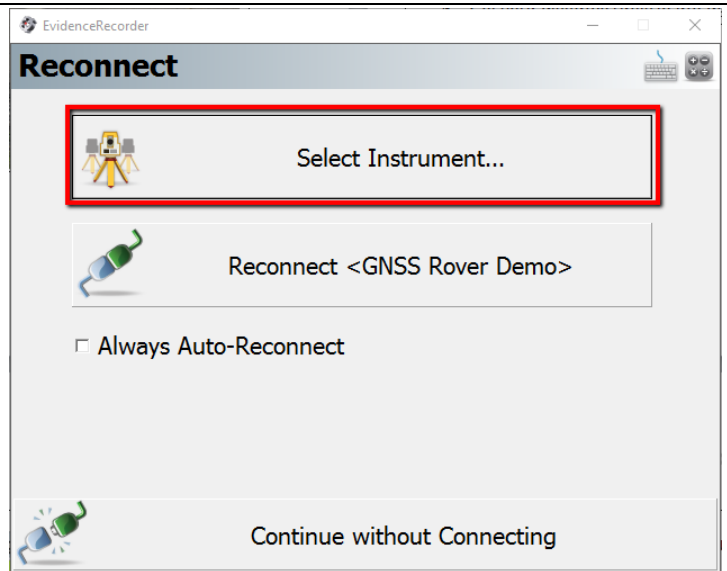
Create a new scene or open the existing scene.

If you're creating a new scene, enter the three coordinates under Mapping Tools|Store Points.

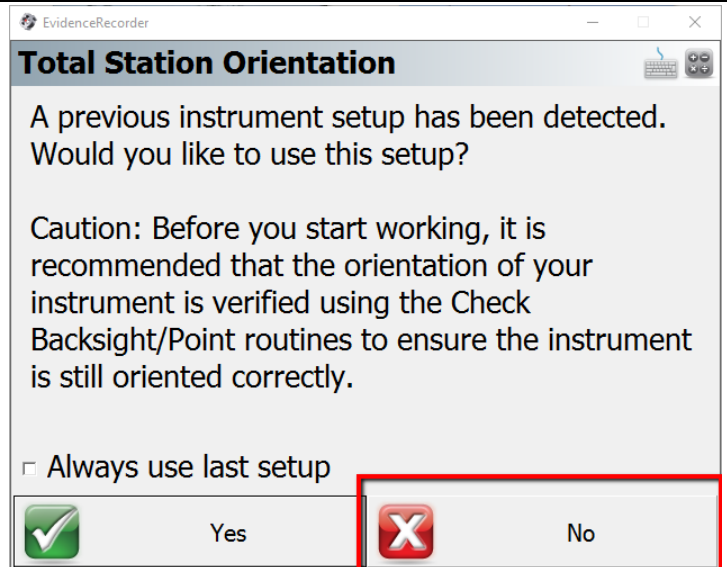




Complete instrument connection.

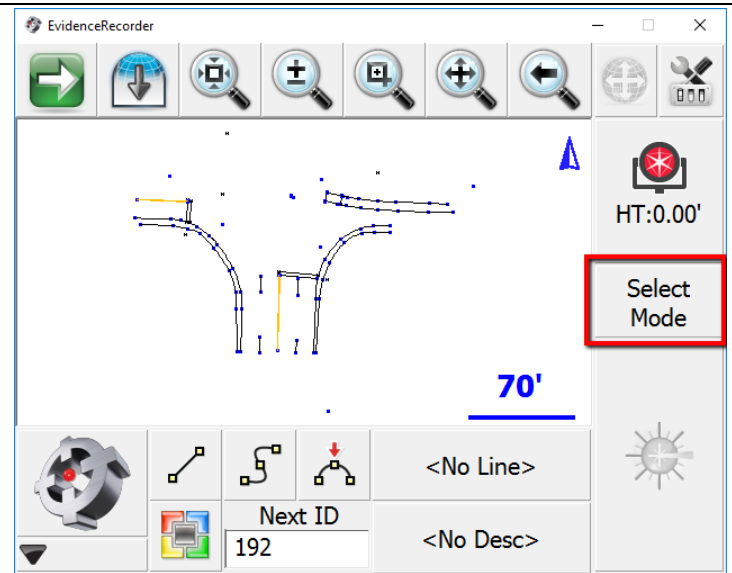


If you see this prompt, select “No”





Pick 'Select Mode', Resection.



Pick 'Resection'.



Resection

Measure the Instrument Height.



Measure the Prism Height.





IMS EvidenceRecorder

Enter the Instrument Height.

Select Point

Please select point and take measurement.

☒ Store Point Observed Point

☒ Close Instrument Height **5.40'**

HT:0.00'

Resect (Ang/Dist)

Pick on the target manager and enter the Prism Height for both foresight and backsight.

Target Manager

Backsight Foresight

Target: Default Prism

Target Height: 4.52' <=

EDM Mode: Standard

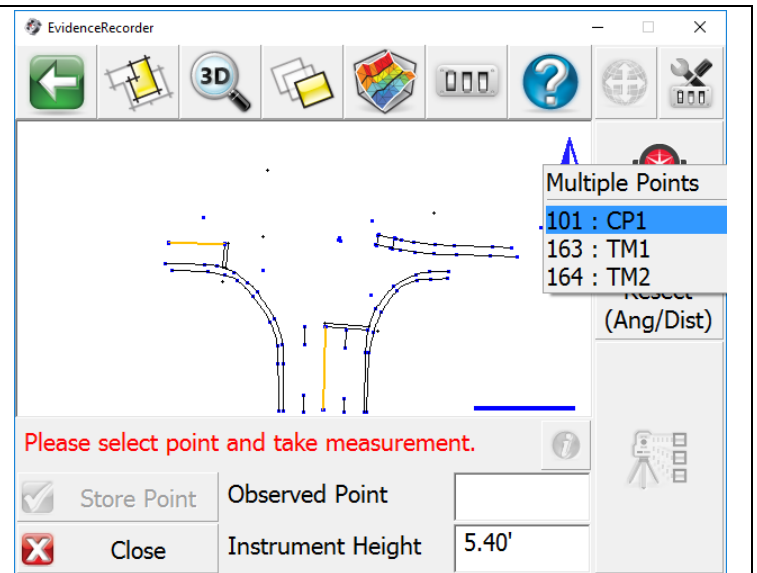
Prism Constant: 0.0mm

☒ OK Default Settings ☒ Cancel

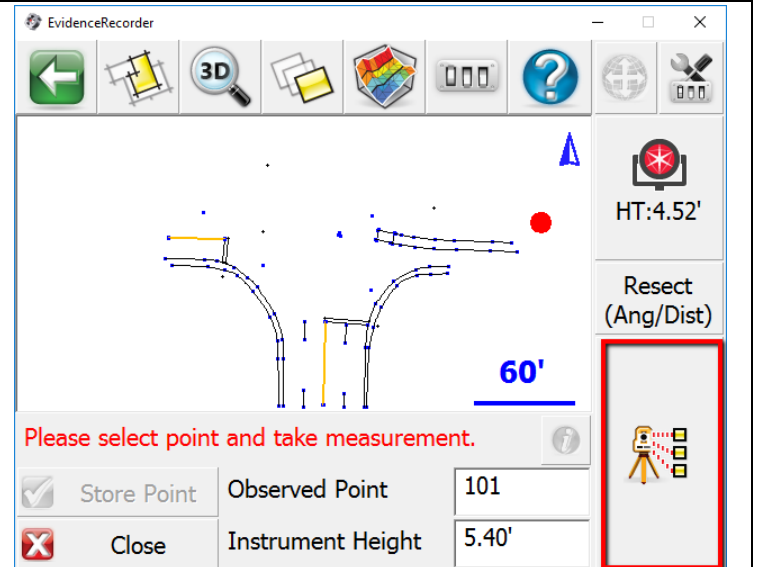


IMS EvidenceRecorder

Select the first of the three control points by pick-select from the map or typing the ID in the point ID column.



Aim the instrument to the control point then press measure.

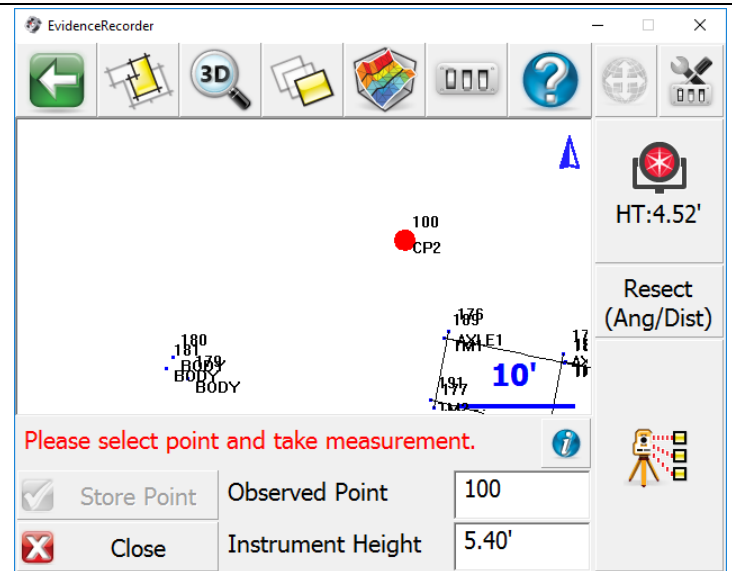




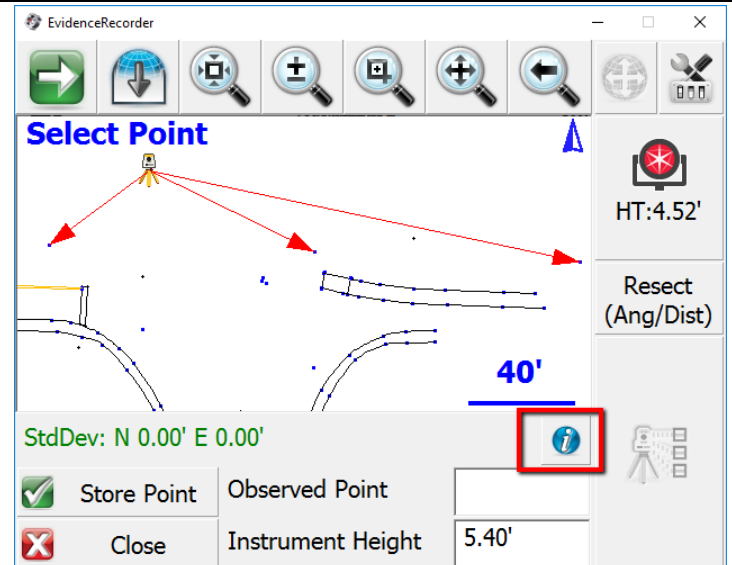
IMS EvidenceRecorder

Repeat the steps to measure the other control point.

(Note: You are not limited to three control points. You may measure additional points if you wish.)



Once finished, select the 'information' button to see the resection result.





IMS EvidenceRecorder

If you have more than two measurements, you can uncheck the boxes to rule out the 'bad' measurement.

In this case, the difference between the actual and computed coordinates at point 100 is .03 if we uncheck its "Use H" and "Use V" options. An HD error of .1 foot or greater would indicate you should re-measure or check your control points to ensure you are identifying them correctly.

Close this dialog and then the resection dialog if you wish to re-measure.

NOTE: The checkmark in the "Backsight" column defines the point that you will turn to when you perform a "Check Backsight."

Close this dialogue and pick 'store point' if you are satisfied with your result.



Close

Resection

Valid Solution:
StdDev: N 0.03' E 0.05'

Point	Backsight	Use H	Use V	HA Error	HD Error
101	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		-0.02'
100	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	-0°00'05"	0.03'
102	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	0°00'01"	-0.02'

Close

Select Point

HT: 4.52'

Resect (Ang/Dist)

StdDev: N 0.03' E 0.05'

☒ Store Point Observed Point

☐ Close Instrument Height 5.40'

50'



IMS EvidenceRecorder

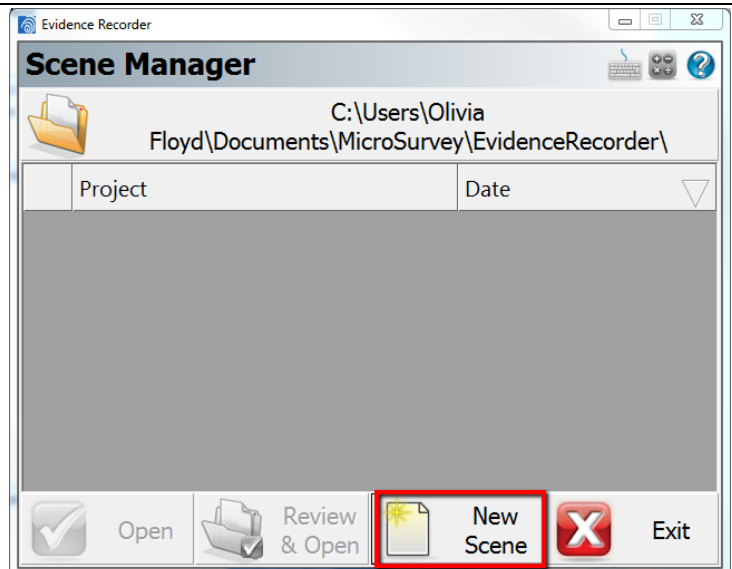
Now you can take sideshots and continue to map the scene.



If you're using a GPS

Create a new scene or open the existing scene.

If you're creating a new scene, enter the two coordinates in Mapping Tools|Store Points.



Setup GPS connection.





Locate the three control points on the ground.



Measure and store the three control points with GPS using different point numbers other than what you've stored.

Store Point

Point ID: 1

Description: CP1

X: -5964601.56'

Y: 19850261.38'

Z: 1259.57'

Antenna Hgt: 0.00'

Store As: GNSS Point

☒ Store Pnt ☐ Cancel

Go to Mapping Tools|GNSS Local Transformation|Modify Parameters

(If you don't see these options, go to Settings|Options|GNSS|check Allow Advanced Settings)

GNSS Local Transformation

☒ Modify Parameters

☐ Import Parameters

☐ Reset Parameters

Go Back



- Method: SimiarityA
- Parameters: Calculate using Control
- Calculate scale (yes)
- Calculate Slopes(no)

Press OK

Evidence Recorder

Transformation Parameters

General

Method	Similarity
Parameters	Calculate Using Control
Calculate Scale	<input checked="" type="checkbox"/>
Calculate Slopes	<input type="checkbox"/>

Similarity Parameters

Origin North	0.00'
Origin East	0.00'
Translate North	0.00'

OK Cancel

Select 'Modify Control'

Evidence Recorder

GNSS Local Transformation

Modify Parameters

Modify Control

Adjust GNSS Points

Import Parameters

Reset Parameters

Go Back

Select 'Add Control'

Evidence Recorder

Transformation Control

Add Control Edit Control Delete Control

Pnt ID	Horz	Vert	ΔX	ΔY	ΔZ	Local X	Local Y	Local Z

OK Cancel



- Apply Horizontal (yes)
- Apply Vertical (yes)

Evidence Recorder

Transformation Control

Control Calculation

Apply Horizontal ☒

Apply Vertical ☒

Local Control

Point

ID

Desc

X 0.00'

Y 0.00'

☒ OK ☐ Cancel

Press 'Select Existing' under 'Local Control'

Local Control

Point

Select or key in one control point ID that you've entered.

Press Select.

Evidence Recorder

Select Local Point

Point ID X: 0.000m
Y: 0.000m
Z: 0.000m
Quick Select ☐ Desc: LOCAL

☒ Select ☐ List ☐ New ☐ Cancel

Press 'Select Existing' under 'Local Control'

GNSS Control

Point

Point

select or key in the control points ID that you've measured with the GPS.

Press OK.

Evidence Recorder

Select GNSS Point

Point ID X: 312339.907m
Y: 5523900.686m
Z: 410.000m
Quick Select ☐ Desc: GNSS

☒ Select ☐ List ☐ New ☐ Cancel



Keep adding Controls by repeating the above Steps.

(Note: You are not limited to three control points. You may measure additional points if you wish.)

Press OK.

Pnt ID	Horz	Vert	ΔX	ΔY	ΔZ	Local X
101	Yes	Yes	0.000m	0.000m	0.000m	0.000m
102	Yes	Yes	0.000m	0.000m	0.000m	0.000m
103	Yes	Yes	0.000m	0.000m	0.000m	10.000m

Press 'Adjust GNSS Points'.

Press Yes on this screen.

This will adjust all the GNSS measurements in the project to the same coordinate system you've entered as controls.

All new measurements in this project will also be adjusted to the same coordinate system.



IMS EvidenceRecorder

Now you can take GPS measurements to continue mapping the scene.

