



ECO GUIDE TO Capturing Coordinate Data

It is possible to collect GPS location data for trees in inventory and plot sample projects, and for plot center in plot sample projects. This can be accomplished using the Mobile Data Collector (MDC), which is a feature of i-Tree Eco that allows users to gather data using any web enabled device such as a smart phone or tablet. GPS locations can also be entered manually.

Set Up

To collect GPS location data in your i-Tree Eco project this option will need to be chosen on the Data Collection Options page, which can be found under Project Configuration > Project Definition. This can be done during project set up or at any time after that. If data collection options are going to be changed after a project has been set up, please ensure that all data being collected with the MDC is submitted and retrieved prior to making changes.

After turning on the option(s) to collect GPS location data the project will need to be submitted to the mobile device if that is the chosen method of data collection.

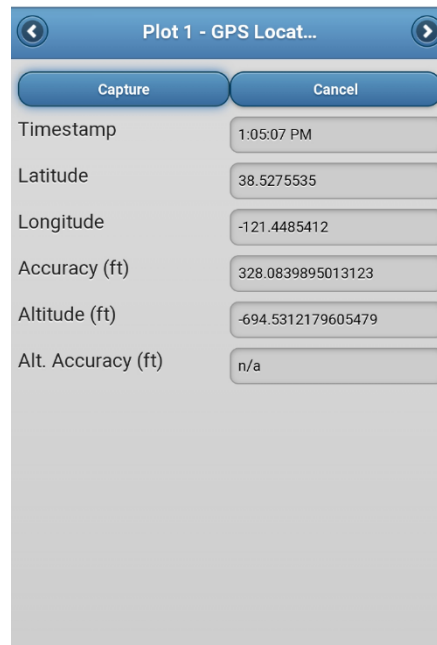
Using MDC to Collect Location Data

Click **Start** to begin satellite acquisition. A rough latitude and longitude will appear, together with an estimated accuracy. It can take up to several minutes for a sufficient number of satellites to be acquired to reach acceptable accuracy.

A screenshot of the i-Tree Eco Mobile Data Collector (MDC) interface. The title bar reads "Plot 1 - GPS Locat...". Below the title bar are two buttons: "Start" and "Clear". The interface displays several fields for location data: "Timestamp" (empty), "Latitude" (41.170918), "Longitude" (-81.35919), "Accuracy (ft)" (empty), "Altitude (ft)" (n/a), and "Alt. Accuracy (ft)" (n/a).

Field	Value
Timestamp	
Latitude	41.170918
Longitude	-81.35919
Accuracy (ft)	
Altitude (ft)	n/a
Alt. Accuracy (ft)	n/a

Once the data meet your acceptable level of accuracy, click **Capture** to save those values




Caution

It can take up to several minutes for a sufficient number of satellites to be acquired to reach acceptable accuracy.

GPS accuracy depends on the device, its connectivity, and environmental factors. Consult with the device manufacturer for more information.



Tip

Depending on the GPS accuracy of the mobile device, post processing to correct point locations on a map may be necessary. To increase accuracy, consider using an external GPS receiver.

Coordinates can also be manually entered. The format for entering coordinates manually is as follows:

Latitude	Decimal degrees (0-90) with direction (35.34642345N)
Longitude	Decimal degrees (0-180) with direction (98.34642345W)

Requirements for GPS Devices

Smartphones, tablets, and other web-enabled mobile devices:

- A web browser with HTML-5 compatibility (most recent versions of Chrome, Firefox, and Safari are compatible; IE 9 and 10 have limitations)

The mobile data collection system available in i-Tree Streets and Eco is designed to work with newer web-enabled mobile devices. This is not an app or program that is loaded on a smartphone. The mobile web form system runs on a devices' web browser and relies on internet connectivity, web browser functionality and device data caching capability.

Newer iPhones, iPads, Android and other devices are HTML-5 compatible and have data caching capabilities that allow for data collection to continue if internet connectivity is disrupted in the field. Some devices such as Windows Phone 7 smartphones and older devices are limited and will require continuous connectivity to advance through the online web forms.

You can also test your devices' capability for data collection using one of the example data collection links on the [Mobile Data Collection page](#). Change to airplane mode after entering data for a tree to see how the browser will function when connectivity is lost.