



How to Download 'Avenza PDF Maps'

Apple:

- Download and install the free *PDF Maps* app by Avenza from the App Store or iTunes.
 - [Click here to go to the App Store directly](#) or search for "Avenza PDF Maps" in the Apple App Store on your mobile device.
 - *PDF Maps* requires iOS 7.1 or later running on an iPhone 3GS or better, 3rd generation iPod Touch or better, or any iPad.
- Open the app, and go to the Settings tab. Scroll down to General Settings, and tap 'Always Use High Resolution' to add a checkmark here. This enables an additional zoom factor to your maps.

Android:

- Download and install the free *PDF Maps* app from the Google Play Store.
 - [Click here to go to the Google Play Store directly](#) or search for "Avenza PDF Maps" in the Google Play Store on your mobile device.
 - *PDF Maps* requires Android version 4.4 or later.
- Open the app, and go to the Settings button (3 vertical dots). Choose General Settings, then under Import Settings, select 300 Dpi as the 'PDF resolution on import'. This enables an additional zoom factor to your maps.

How to Download Maps

Maps can be downloaded in multiple ways:

- **Website or e-mail link:** If you receive a link to the map via an e-mail or website link, click the link to open the map. Once opened, you will need to find the "Open In..." option to have the map download to the PDF Maps app. It will download to the app and then be processed within the app, which may take a few minutes before being ready for use. Be sure to have internet access to complete this download step; once downloaded and processed, it is not necessary to have internet access to use the map.
- **QR Code or pasting link:** A link can also be pasted into the app directly. Copy a link, and then open the app. Within the 'Maps' tab, choose the Add Map or Import Map button (usually a plus '+' sign). A link can be pasted at the bottom of this dialog box, or the 'From QR Code' option can be chosen if using a QR code. The map will download and then be processed within the app, which may take a few minutes before being ready for use. Be sure to have internet access to complete this download step; once downloaded and processed, it is not necessary to have internet access to use the map.
- **Other maps in the Map Store:** The Trail Conference offers more than 70 maps through the Map Store within the app. To find these and other maps of your area of interest, navigate to the 'Map Store' tab (accessed via the shopping cart icon on Android devices) within the app, from which you can search for a park or map by name or by zooming in on your location and clicking on particular placemarks in the vicinity of your current location (the latter option being especially helpful when making opportunistic observations).
 - On Apple devices, the Search function is accessed by tapping the Magnifying Glass button.
 - On Android devices, the Search function appears after tapping the Magnifying Glass.

How to Take Points/Placemarks

To take points (called Placemarks in the app), follow these instructions:

1. Open the map you are planning to use. Once opened, you should see a crosshair symbol in the center.
2. To have the map pan to your current location, hit the Locate button to center the map on a blue dot (Apple devices, this button is an arrow button on the left side of the tool bar; on Android devices, this button is a crosshair symbol on the left side of the tool bar).
3. To collect a point/placemark, first tap this Locate button to ensure the crosshairs are at your location.
4. Next, tap the Placemark symbol (pushpin button in the toolbar next to the Locate button), which will drop a pushpin at your current location. A number will be assigned to it (such as Placemark 1), and you are good to continue on.
5. Advanced options can be accessed by tapping the Placemark name. This includes the ability to attach photos to that placemark and writing a description of the point. Placemarks can also be deleted from this option screen.

How to Record a Track

To record a track of the route you take, follow these instructions:

1. Open the map you are planning to use.
2. To have the map record a track, you need to actively start this process (it does not occur automatically in the background).
3. Tap the Tools button (wrench symbol on right side of tool bar), and select the 'Record GPS Tracks' tool.
4. You need to press the "Start" button to begin recording the track. On Apple devices, this is a 'Start' button. On Android devices, this may just be a right-facing triangle with a 'Ready' label.
5. The track will collect in the background now, as long as you do not hit the 'Stop' or 'Pause' buttons. Note that for most devices, the track will continue to collect even if you tap your device's power button to put the screen to sleep. This is helpful for conserving battery life, but be sure to test this out first to ensure this works on your device.
6. Once you are having finishing walking your route, be sure to 'Stop' the track collection (on Android devices, this may be 'Done'). That track will then be saved in the app.
7. Tapping on the completed track name (such as "Track 1"), will bring up advanced options. Within the advanced options, a 'Graph' section can be tapped to show statistics like Total Distance and Total Time.

Specific Avenza PDF Maps Instructions for Blockbuster Survey

1. **Adjust units settings:** From the Map Library tab (where downloaded maps are listed), open the settings (on Apple devices, Settings tab; on Android devices, 3 vertical dots icon on top right). Scroll down to "Use Metric Units" and make sure this is checked.
 - a. This will enable you to record your track in metric units to see how far in meters you have progressed from the starting point of the particular survey you're doing. You can record the plant data for each segment of the survey (i.e., the first 100 meters representing segment 1, the second 200 meters being segment 2, etc.).
2. **Adjust screen settings:** If battery life will not be an issue, you can choose to keep your screen on so that the map is continuously displayed. This can make it easier to track your progress by preventing you from needing to repeatedly reopen the app.
 - a. On Android devices, go to the settings menu as above, then check "Keep Screen On".
 - b. On Apple devices, go to your device's Settings app (back to the home screen of app icons, then Settings). Scroll down to General, then tap "Auto-Lock" and change this setting to "Never". Once done with the surveying, be sure to change this back to a different time period for regular use of your device.
3. **Measuring how far you have gone:** It is possible to see, in real-time, an approximation of distance traveled. Please note that due to how these devices log GPS data, these distances are only rough approximations. Start

Avenza PDF Maps, app maps from NY-NJ Trail Conference recording a track, as described in the section above, and use one track per survey type (“HPA”, “Natural Area Parking Lot/Trailhead” or “Natural Area Trail”).

- a. To see the distance while you walk, you need to tap on the point where you started recording the track, and it will show you a small window with the name of the track (such as “Track 1”) as well as information on distance walked and time. The distance will change each 10 meters you have progressed, and will be indicated in hundredths of kilometers. For example, after you have gone 10 meters, the distance will appear as 0.01 km; after 20 meters, it will be 0.02 km; and so on). The end of your first segment will be at 100 meters, which will be displayed as 0.1 km; the next segment will end at 200 meters which will display as 0.2 km, etc.

| When to record end of segment | Distance you have gone | How distance is displayed on the PDF Maps screen | Approximate conversion to feet |
|-------------------------------|------------------------|--|--------------------------------|
| End of Segment 1 | 100 m | 0.1 km | 330 ft |
| End of Segment 2 | 200 m | 0.2 km | 660 ft |
| End of Segment 3 | 300 m | 0.3 km | 980 ft |
| End of Segment 4 | 400 m | 0.4 km | 1300 ft |

Important Note: Recorded Tracks and Points will display on the screen. Make sure to not move their position accidentally with your finger (this can occur if you tap one of them and hold the finger down on the screen and then drag your finger across the screen; to avoid doing this, try to not hold your finger down on the screen, but instead use quick taps).

How to Export Placemark and Track Data

To export the collected data, follow these instructions:

1. Once placemarks and/or tracks have been collected, it is possible to Export the data.
2. To perform an export, tap the Placemark List button (pushpin with lines symbol on right side of tool bar). This brings up folders of Placemarks and Tracks that are available for that map.
3. Tap the Export button, which is a symbol with an arrow pointing out (on Apple devices, an arrow pointing away from boxes; on Android devices, an arrow pointing up from a line).
4. The default filename is the map name.
5. The export format should be KML. GPX is also acceptable, but KML is useful when photos are included.
6. The ‘Send To’ should be Email, which will allow you to e-mail the data to an e-mail address.
7. All features should be selected by default. It is possible to select just placemarks, or just tracks, but this step is not necessary.
8. On Apple devices, tap the ‘Export’ text to complete the export. This should bring up a blank e-mail with the data attached as an attachment. Just enter the e-mail address where the data should be sent, and send off the data!
9. On Android devices, tap the ‘Export’ button to complete the export (not the ‘Export Schema Only’ button). This should allow you to choose your e-mail client (such as Gmail, etc.), where the data will be attached as an attachment. Just enter the e-mail address where the data should be sent, and send off the data!

PLEASE EMAIL YOUR DATA TO: invasives@nynjtc.org