

# Trimble GeoXH ArcPad Instructions

Updated 6/10/2014

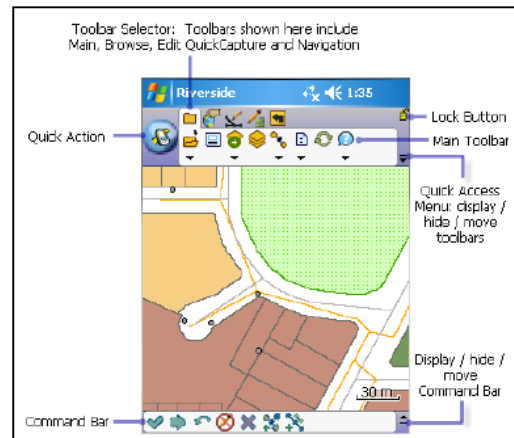
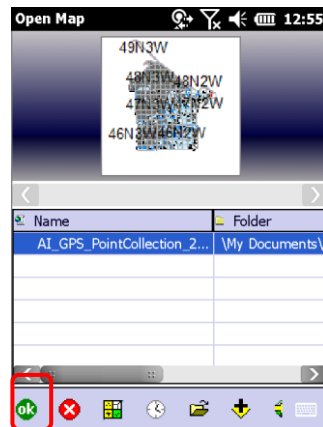
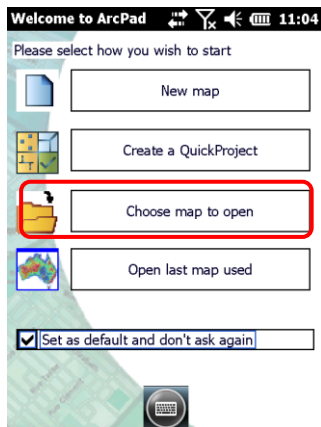
Created by Kim (Ness) Sundeen

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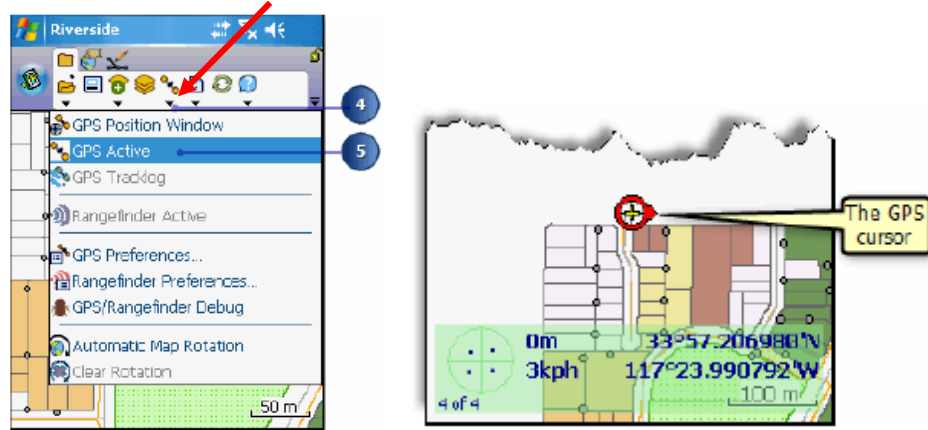
## 1. Turn Trimble GPS On

- Turn on the Trimble by pressing down the green button.
- Open ArcPad by clicking the **GNSS** button at the bottom right of the screen.
- Click **Choose Map to Open** on the Welcome to ArcPad screen.
- Select the map you want to open by tapping it so it is highlighted. (It should be named *Invasives\_2014mdd\_Project.apm*.) Click the green **OK** button on the bottom left of the screen.



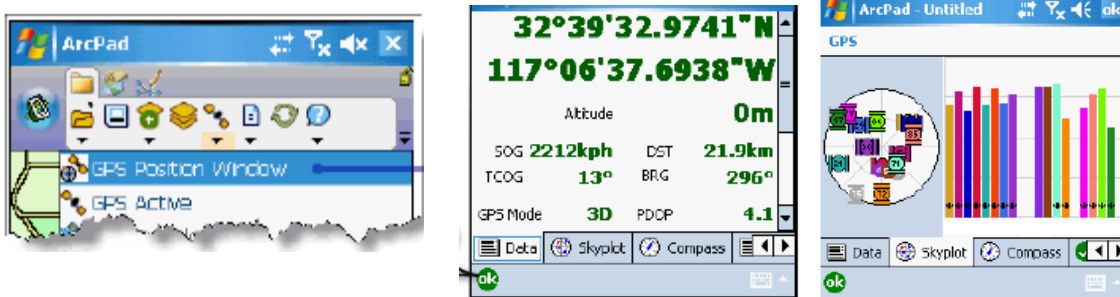
## 2. Activate GPS ("Mickey mouse ears"): "GPS Active"

- Tap arrow below GPS Position Window button to display dropdown list.
- Tap **"GPS Active"** & wait for the red circular cursor in middle of screen to become a 



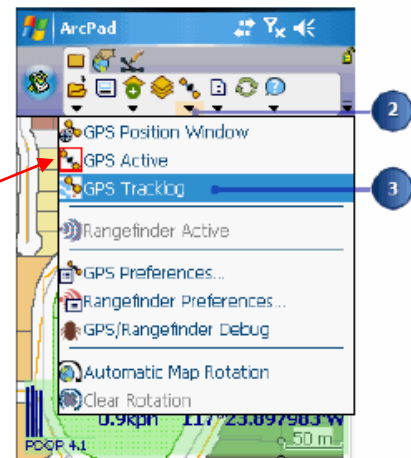
### 3. Check Satellites.

- Tap GPS Position Window to view satellites overhead, navigation to a location, & compass. Wait for GPS to acquire satellites. You need at least 4 circling to get an accurate signal.




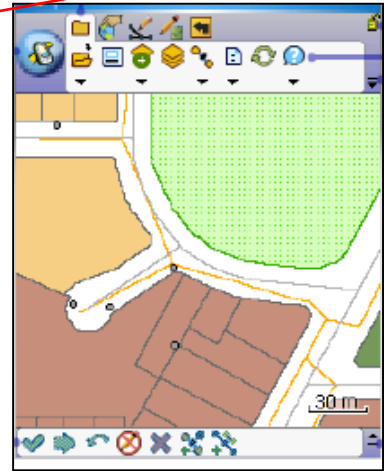
### 4. Turn Tracklog ON (under the GPS Mickey mouse icon, as "GPS Tracklog")

- Under GPS menu, tap "GPS Tracklog".
- Make sure **GPS Active** button is already outlined in **RED** showing it's active. Once red bar of "No Fix" at bottom of screen turns into a **green** bar showing numbers, then click dropdown menu under the GPS Activate button & click on **GPS Tracklog**.  
*Your Tracklog should be recording after this, showing up as a red line on your screen as you move about.*
- You can proceed with your work after this, including the recording of additional points when an invasive species is encountered.
- You should turn the Tracklog recording off when moving from site to site unless an inventory survey is being completed in route.** To turn off the Tracklog you should first click **Save** at the top of the screen under the Main File Menu. After this, navigate to the dropdown menu under the GPS Activate button & click on **GPS Tracklog** again. The Tracklog will stop recording. Once at your next site go in & click on **GPS Tracklog** to start recording again.
- At end of the day click **Save** & then exit map. (You should also save periodically throughout the day.)
- After saving & exiting the map for the end of the work week, **you must rename the Tracklog file.**

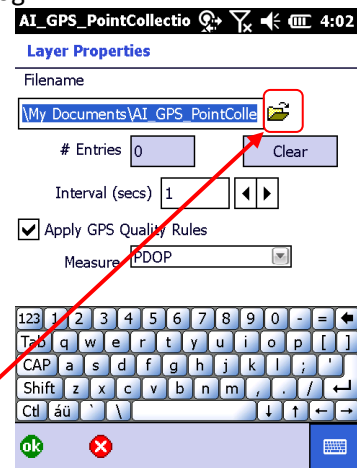
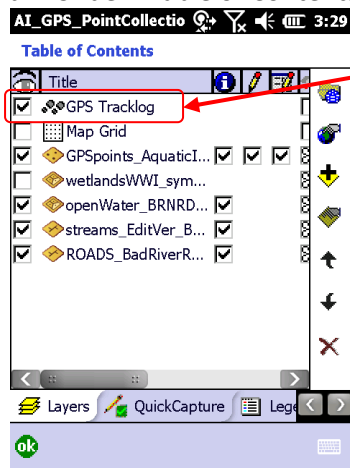



## 5. Rename Tracklog

- a. To rename Tracklog file, go to the  “Layers” Toolbar.



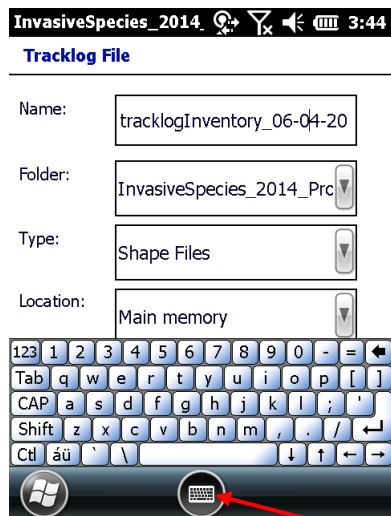
- b. Under “Table of Contents” double click the top file, “GPS Tracklog”.



- c. Under “Layer Properties” select the “Browse” icon .

- d. Recall what activity you’re doing today (ACTIVITY = Inventory, Mapping, or Control).

- e. After “Name” enter “tracklog-[ACTIVITY]\_MM-DD-YYYY” where “ACTIVITY” is either “Inventory,” “Mapping,” or “Control.” MM is the 2-digit month (for example 05 for May), DD is the 2-digit day, & YYYY is the 4-digit year.



← Change “Name” to “tracklog-[ACTIVITY]\_MM-DD-YYYY”

← Change “Folder” to “InvasiveSpecies\_2014\_Project”.



- f. Tap Save. (you may need to hide the keyboard by tapping the keyboard icon at the bottom of the screen).

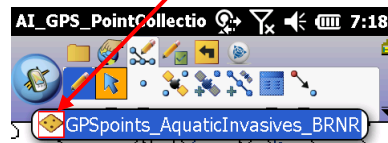
## 6. Collect a GPS Point Location

### Overview of creating point features

Creating a point feature using the incoming GPS coordinates involves the following steps:

- Select a point layer for editing via the Start/Stop Editing tool or the Table of Contents.
- Activate the GPS.
- Tap the GPS Point button on the Edit toolbar to create a point feature.
- Type in attributes for the new point feature.

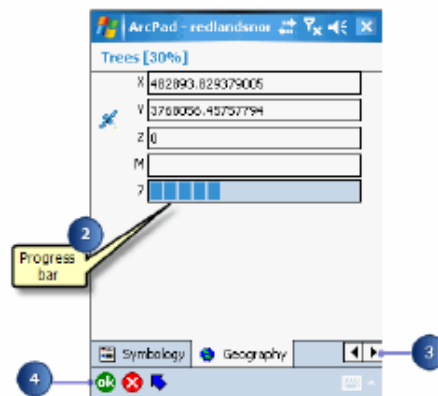
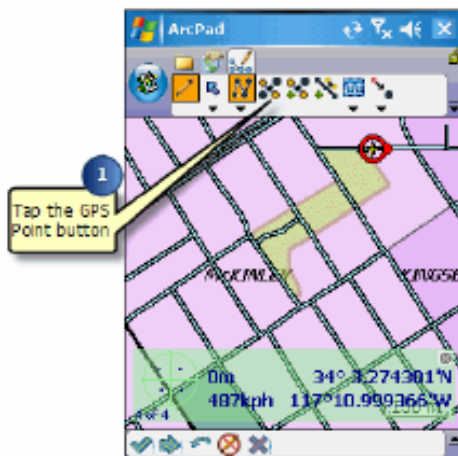
- Under the “Edit Menu”  & select “pencil tool”  to start editing the point file. Select the file & it will then have a **RED BOX** around the file you are actively editing.



## Steps to create point features with a GPS

Steps:

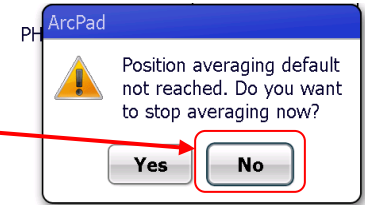
1. Tap the GPS Point button to capture a new point feature at the current GPS position.



The Feature Properties dialog box or custom edit form is automatically displayed after the new point feature has been created.



2. The Geography page shows a progress bar, which counts down from the specified number of GPS positions to average to zero.
3. Scroll and tap Attributes to display the Attributes page. Type the attributes for the new point feature.
4. Tap OK to save the attributes, close the edit form—or the Feature Properties dialog box—and complete the new point feature.  
If you tap OK before the averaging is complete, a dialog box will display asking whether you want to terminate the GPS position averaging.


- If you don't have a good GPS fix to satellites, you will receive this error. Click "No" and wait at least 5 minutes for your GPS location to improve.



- Enter all information into table. If you have questions, note where you have problems.**
- If you forget to enter any fields, you will receive a warning to fill the field before you can proceed.

**Go to page 2 at the bottom to finish entering all fields.**

Hit the green "OK"  button at bottom to save point or  to cancel (delete) your point.

 button allows you to go back to the map, but doesn't save your point. It can be difficult to find your point again if you decide to use this option.

Attribute in Data	Attribute	Attribute Explanation
DATE	Date	Day an invasive species was found/treated/mapped
TIME	Time	Time of data work was completed
STAFF	Staff	Enter your name
IS_ACTVTY	Current Invasive Species Activity	"basic observation", "control", "meander inventory", "detailed mapping", intensive surveying"
IS_NAME	Invasive Species Common Name (if 2 species are at same site, they should be entered on different rows)	See list
NUM_PLANTS	Estimated number of invasive species in population	"1-50", "51-100", "101-500", ">500"
SIZE_AREA	Estimated size of the invasive species infested area	"car", "semi," "1/2 football field", "1 football field", "2 football fields", ">2 football fields"
PHOTOS	Indicate whether or not photos were taken	"not taken", "taken"

## 7. Collect a GPS Polygon

### Overview of creating polygon features with a GPS

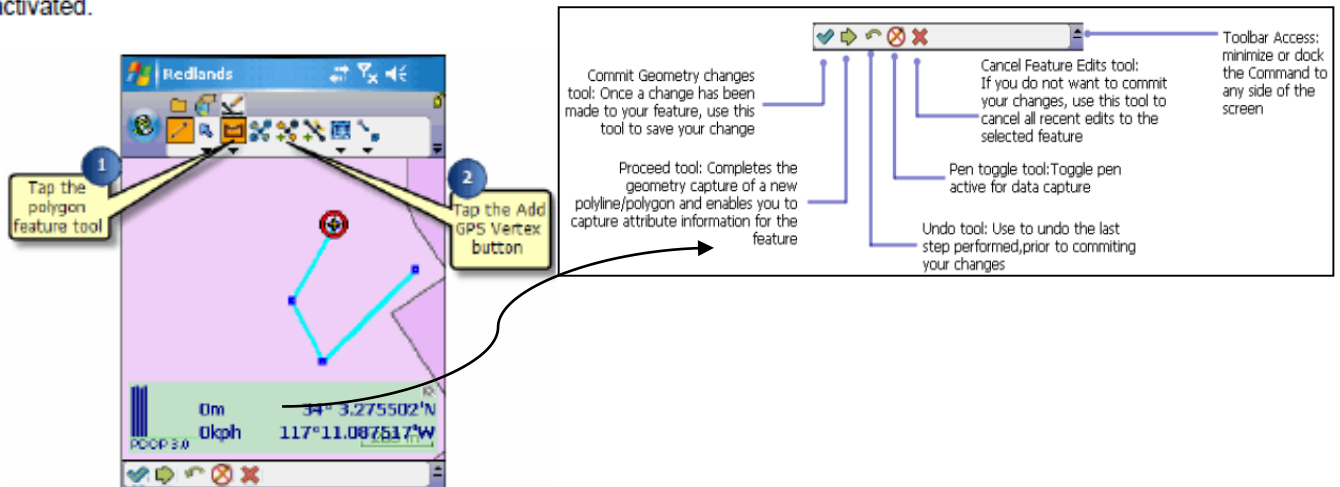
Creating a polygon feature using the incoming GPS coordinates involves the following steps:

1. Select a polygon layer for editing via the Start/Stop Editing tool or the Table of Contents.
2. Activate the GPS.
3. Tap the Polygon button to start capturing a polygon feature.
4. Tap the Add GPS Vertex button to capture a single vertex or tap the Add GPS Vertices Continuously button to capture streaming vertices.
5. Tap the Proceed button to complete the capture of the polygon feature.
6. Type in attributes for the new polygon feature.

### Steps to create polygon features with a GPS

Steps:

1. Tap the arrow below the feature tool to display the drop-down list. Tap the Polygon feature tool. The Add GPS Vertex and Add GPS Vertices Continuously buttons are enabled if the GPS is activated.



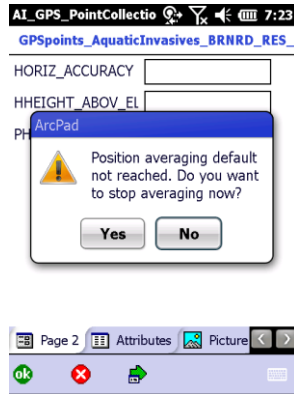
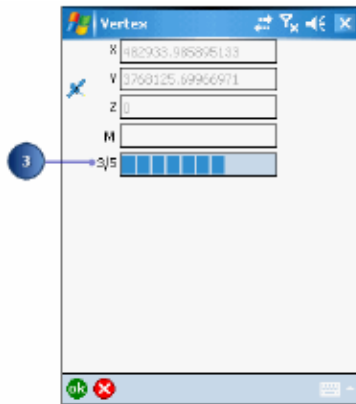
2. Tap the Add GPS Vertex button each time you want to use the current GPS position coordinates to capture a vertex.

The vertices are drawn with a blue box and joined with a line.

At any time, you can tap and hold anywhere on the map to display the Capture menu. Refer to the Creating line features task for more information on the Capture menu. Use the Capture menu to create vertices at specified x,y coordinates or relative to the last vertex or the current GPS position. You can also delete the last vertex.



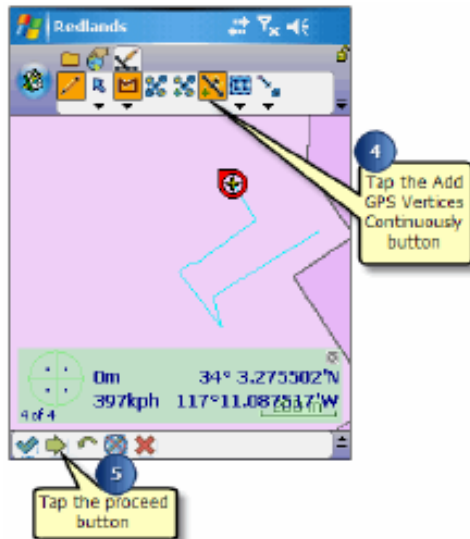
3. The Vertex dialog box is automatically displayed if GPS position averaging is enabled for vertices.



If you don't have a good GPS fix to satellites, you will receive this error. Click "No" and wait at least 5 minutes for your GPS location to improve.

**DO NOT CANCEL** the averaging and allow the averaging to complete.

4. Tap the Add GPS Vertices Continuously button to use the incoming GPS coordinates for capturing vertices in a streaming mode. A vertex will be captured each time ArcPad receives a coordinate from the GPS, based on the specified streaming vertices position and streaming intervals.



5. Tap the Proceed button to complete the capture of the new polygon feature. ArcPad will automatically close the polygon by adding a final vertex with the same coordinates as the first vertex. The Feature Properties dialog box, or custom edit form, is automatically displayed after the new polygon feature has been created.
6. On the Attributes tab, tap the Value field to open the associated Value text box for typing in attribute data.
7. Tap OK.

- **Enter all information into table, See Attributes to enter under creating points (#6)**



## 8. Finding a GPS point & Navigating to It

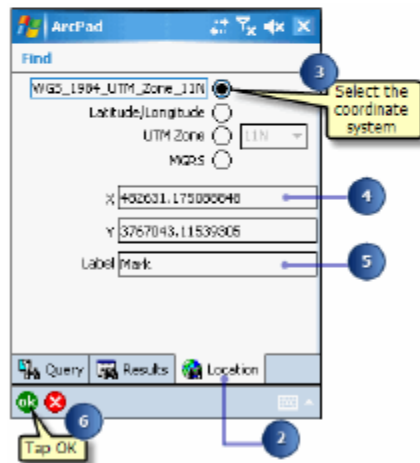
The Find dialog box also enables you to find a location based on a set of coordinates. You can select from the following coordinate systems: the current map projection, Latitude–Longitude, the current UTM Zone, and MGRS. Simply enter the required information and ArcPad will go to the location and label it. The default label is Mark.

Steps:

1. Tap the Find button on the Browse toolbar.  
The Find dialog box opens.



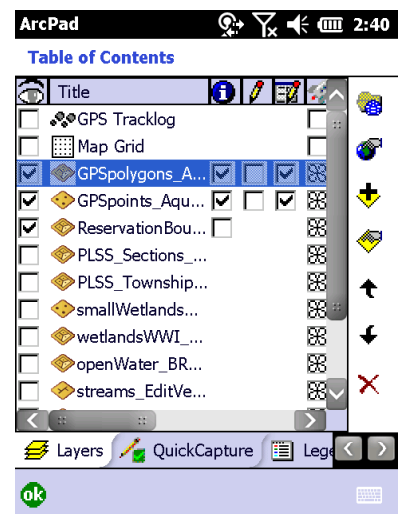
2. Tap the Location tab.
3. Tap the appropriate radio button for the coordinate system to be used.



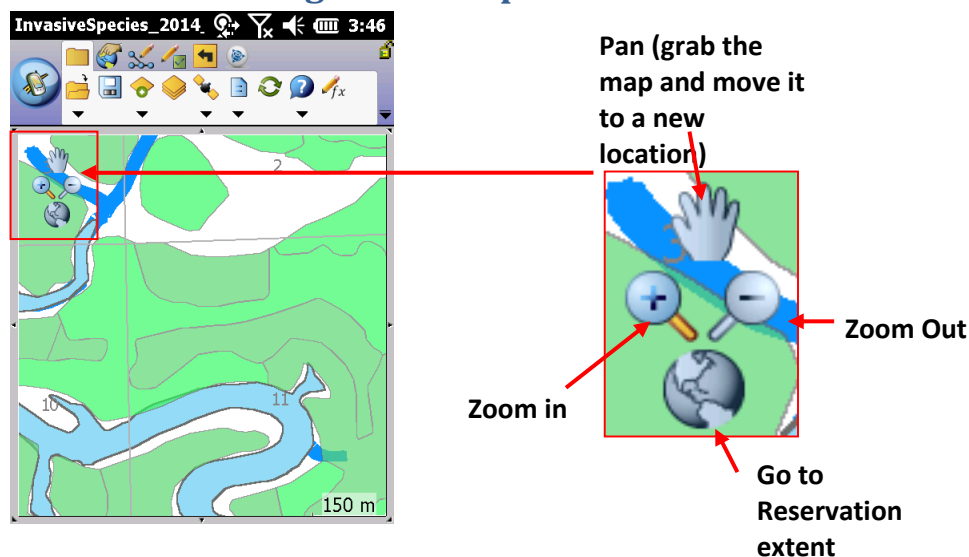
4. Enter the required coordinate information.
5. Enter a name for the label. The default is Mark.
6. Tap OK.  
The location is labeled on your map.

## 9. Turn Layers ON or OFF


- Click on “Layer” icon (the pancakes) and click the check box on the LEFT to turn on or off any layer.

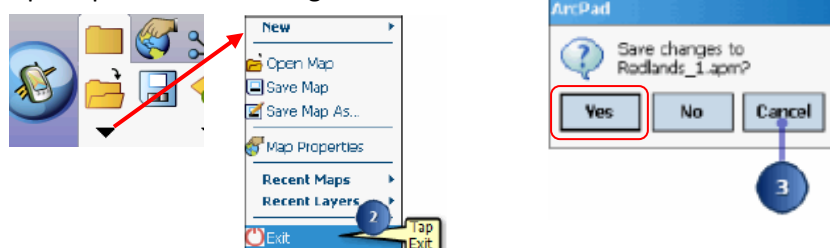


## 10. Moving on the Map



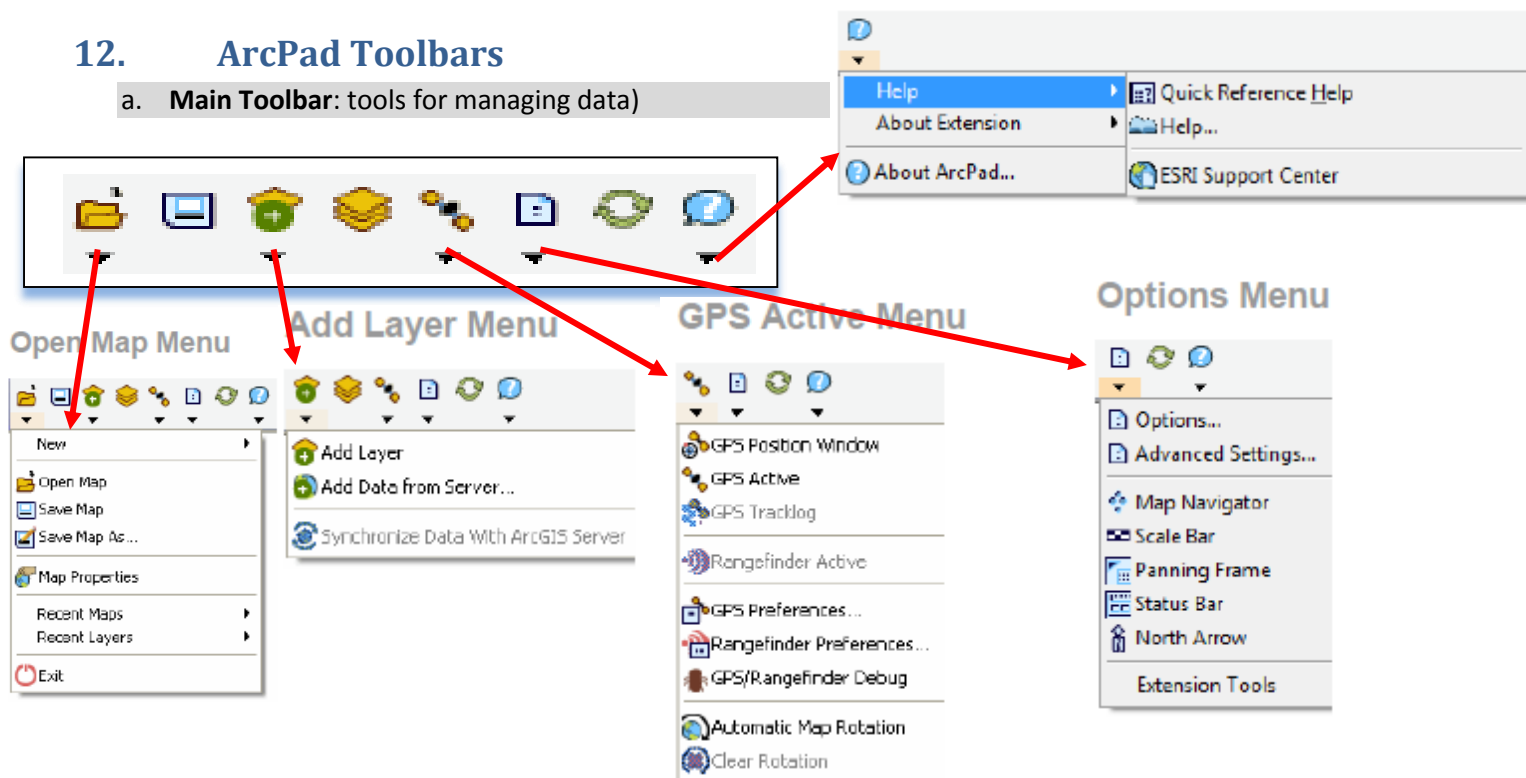
## 11. Exit ArcPad & Save Changes

- Under the "Folder Menu", tap the blue disk icon  to save your map.
- Next, tap the black error under the folder icon and click "Exit" to close out of ArcPad. If you forgot to save your map, you will be prompted to Save Changes. Click "Yes".

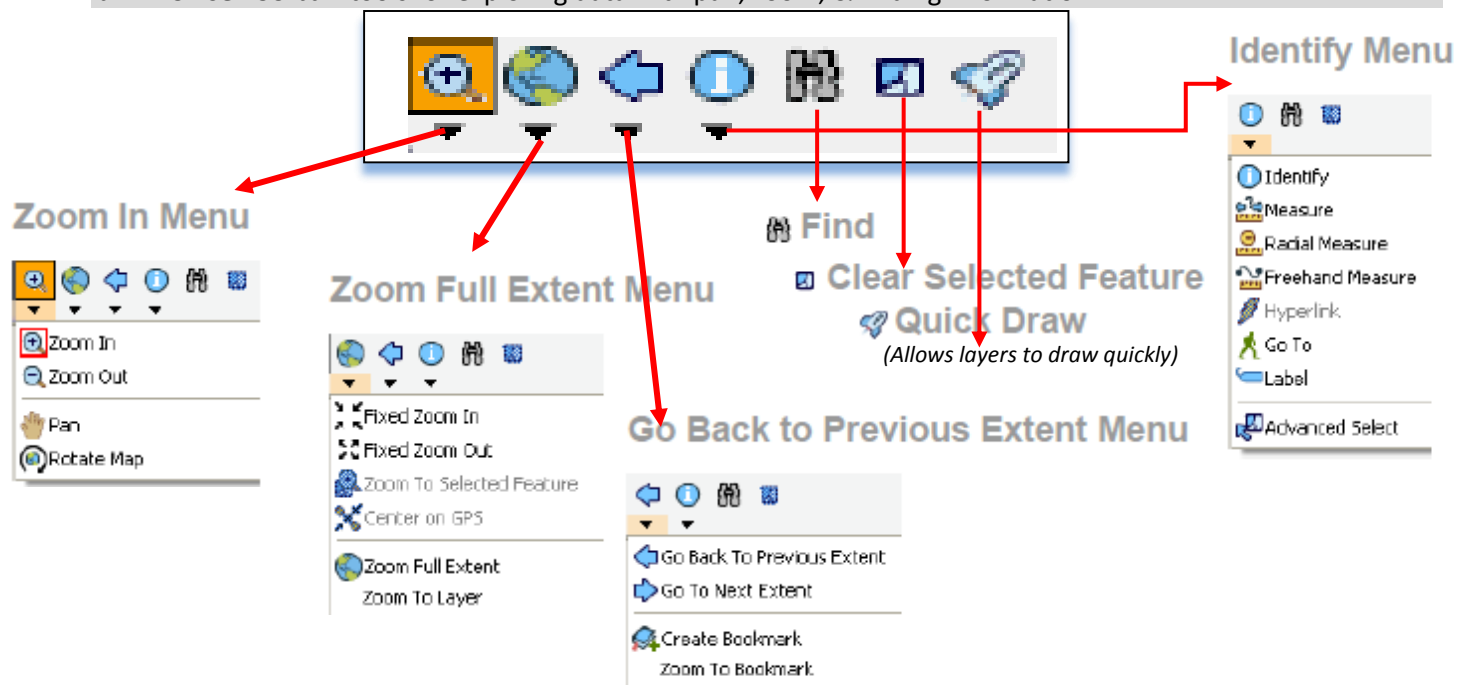


## 12. ArcPad Toolbars

- Main Toolbar:** tools for managing data)



**b. Browse Toolbar:** tools for exploring data with pan, zoom, & finding information



**c. Edit Toolbar:** tools for editing, adding new data, or updating existing data

