Trimble GPS units and ArcPad data recording

1. Turn on the Trimble GeoXH by pushing the green power button on the bottom right.
2. Using a stylus – not a pen as this will scratch the screen – tap the Start button on the top left of the screen.
3. Select ArcPad 7.01 by tapping on it once. It may take a few moments for the program to open.
4. Adding Existing Layers
   A. Tap the yellow button with the black plus sign on the top menu bar.
   B. Navigate to the layer you would like to add by tapping on the plus and minus signs to expand or collapse folders.
   C. When you have found the layer you would like to add, tap on the empty box to the left of the layer’s name so that a red check mark appears in the box. Note that you may add multiple layers at one time.
   D. When you have selected all the layers you would like to add, tap the green ok button at the bottom left of the screen.
   E. To make changes to a layer it must be editable. To make a layer editable, tap on the Layers button (three overlapping yellow diamonds). Note that only layers of each type (point, polyline, polygon) can be editable at a time. While several layers may be editable at the same time, two point type layers, for instance, cannot be editable at the same time.
   F. A window called the Table of Contents will appear. In the column under the pencil, tap the empty box next to the layer that you would like to edit so that a black check mark appears in the box. Tap the green ok button at the bottom left of the screen. Note that a new toolbar, the Edit Toolbar, will appear now that there is a layer in edit mode.

5. Next turn on the GPS receiver by tapping on the button with a satellite and cross hairs on it. A window will appear that says the GPS is not active and ask whether you would like to activate it now. Tap yes.

6. A smaller window will appear on the screen that will display your current coordinates and which satellites the GeoXH is using. It may be closed by tapping the x at the top right of the window.

7. If working with a point type layer:
   A. To mark your current location with a GPS position, tap on the button with a single satellite and a single point (this will be the furthest left of three adjacent satellite buttons on the editing toolbar).
   B. If there is a data entry form associated with the layer, it will appear at this time so that information may be entered. When you have entered all the data, tap the green ok button at the bottom left of the screen. Note that tapping the red x at the bottom left will cancel recording the GPS position. Also note that it takes about 30 seconds to record a GPS position in a point type layer, depending on satellite reception.
8. If working with a polyline type layer (Note: a polyline is denoted as a zigzag line with dots at the vertices of the angles):
   A. To begin drawing a polyline, tap the polyline button from a menu displaying the different types (point, polyline, etc.) on the editing toolbar. If polyline is not selected, select it by tapping on the black down arrow next to the feature button (this will be the button just to the left of the first button on the edit toolbar) and taping on polyline.

   B. There are two ways to capture a polyline. You may choose to have a continuous line drawn or you may simply stand at the vertices of your feature and have line automatically connect the vertices together.
      i. To draw a continuous line, make sure that polyline is selected and tap on the satellite button that has three dots and a small plus sign (the farthest to the right of the satellite buttons) on the editing toolbar. Begin walking with the unit and the line will be drawn. When you have walked as far as you need to, tap on the green arrow that points to the right at the bottom of the screen. A data entry form will appear if there is one associated with the shapefile. If you are not asked by ArcPad to record some kind of data there is a good chance you are NOT recoding the Long/Lat for that line or point.

      ii. To capture vertices, make sure that polyline is selected and tap on the satellite button with a single point and a small plus sign (the middle satellite button), on the editing toolbar, when you are at the first vertex. When standing at the next vertex, tap the satellite button again. A new vertex will appear with a line connecting it to the first. Proceed along the feature until you are finished. Note: more vertices should be taken around curved corners, as only straight lines are actually drawn. When you are finished, tap on the green arrow that points to the right at the bottom of the screen. A data entry form will appear if there is one associated with the shapefile.

9. When done, turn off the GPS receiver by tapping the black down arrow next to the button with the small satellite and cross hairs (the one that you tapped to turn on the GPS receiver. Tap ‘GPS Active’ (the small icon to the left will have a red box around it meaning that the receiver is on) to turn off the GPS receiver.

10. To exit ArcPad, tap on the black down arrow next to the opening folder icon at the top left of the screen. Select ‘Exit.’ Note: that tapping on the x button at the top right of the screen simply minimizes ArcPad. There is no need to save changes as they are automatically saved as you are working. All you will be saving if you save the ArcPad project would be any special settings or layer features and the references to the various shapefiles you were working with. Saving ArcPad projects creates a file with an .apm extension and sometimes further complicates the file transfer process.