Setting up a bluetooth link between Trimble GeoXH and a Rangefinder and finding offset points

Note: These instructions are for a TruPulse 360 Laser Rangefinder. Instructions for a Lasercraft Rangefinder are similar, though the specific controls are slightly different. Both can be used to establish a bluetooth connection and take readings using offsets in ArcPad on a Trimble GPS unit running ArcPad 7.0 or greater.

1. Turn on the Rangefinder and turn on the GeoXH.

2. Connect to Bluetooth
   A. Go to START; SETTINGS; at the bottom tap on Connections; then Bluetooth.
   B. Make sure that both Turn on Bluetooth and Make this device discoverable… are checked.

3. Activate the Rangefinder
   A. Tap on Devices at the bottom and tap New Partnership in the window. The device will search and the Rangefinder should appear with a questionmark for an icon.
   B. Tap on it and tap Next

4. Establish a Passkey of “1111” and tap Next. Do not check the Serial Port Box.
   A. Tap Finish

5. Tap on Serial Ports at the bottom of the screen and in the Client Serial Ports window, tap New… Once the GeoXH finishes searching, tap Rangefinder and Next.

6. Note the COM. Under Port: make a mental note of the COM that is selected as it will normally randomly select an open COM port. Tap Finish. Tap OK at the top of the screen and exit to the START menu.
   Note: 1-8 to establish connection b/w devices.

7. Open ArcPad 7.0.1. from the Start pull-down menu.
   A. Tap the black down arrow at the opened folder icon in the upper left and tap new -> Shapefile.
   B. Tap the + button and name the field and tap OK. Tap OK.
   C. Name the new shapefile layer and save it only if you don’t already have a shapefile you’re using.
   D. Tap the down arrow at the GPS icon (satellite with crosshairs under it).
   E. Tap on GPS Preferences and make sure that Trimble GPScorrect is the Protocol and COM3:TSIP Serial port is the port and set the Baud to 9600 and check the first three boxes and tap OK.
   F. Go back to the GPS icon and tap Rangefinder Preferences.

8. From the drop-down menu, select as the protocol.
A. Set the port as whichever COM was selected for the Rangefinder when it was being set up.
B. Set the Baud to the Rangefinder baud of 4800 and check the *Automatically Activate* box and tap OK.
C. Back under the GPS icon tap GPS Active. Tap on the black arrow by the Pencil Icon and select the shapefile you wish to edit.
D. Tap the icon below the pencil which should be the *Offset* icon (a red dot with an arrow pointing to a blue dot).
E. You are now ready to capture offset points. Under GPS symbol “activate Rangefinder”.

9. Set the Rangefinder mode to distance.
   A. Point the Rangefinder at the target you wish to capture and hold the button until the range appears in the HUD.
   B. The GeoXH screen should go to a screen titled *Point/Vertex*.
   C. Tap on the tripod beside the Reference Point box to set your reference point and tap the satellite to begin averaging your position.
   D. Tap OK when it is finished averaging.
   E. Tap OK to record your point and fill out the *Feature Properties* and tap OK.
   F. Point the Rangefinder at the next point and repeat the steps.

10. You’ll need reference points A & B: A – from Rangefinder to GPS and B – from Rangefinder to point
    A. You must do calibration routine at every new site.
    B. Set True/Pulse Rangefinder to HD (Horizontal Distance).
    C. Pull trigger by pressing “fire” button.