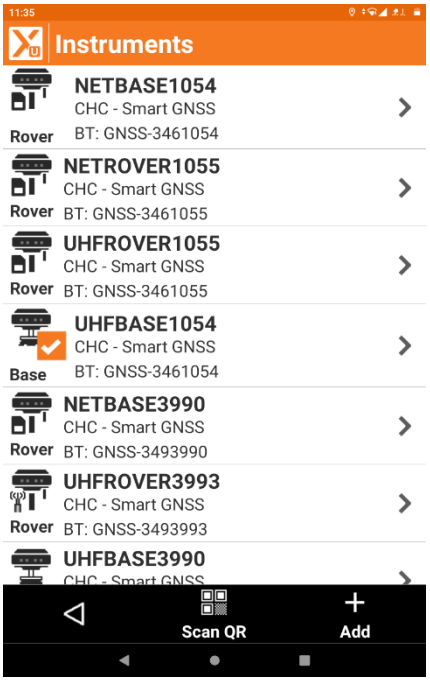
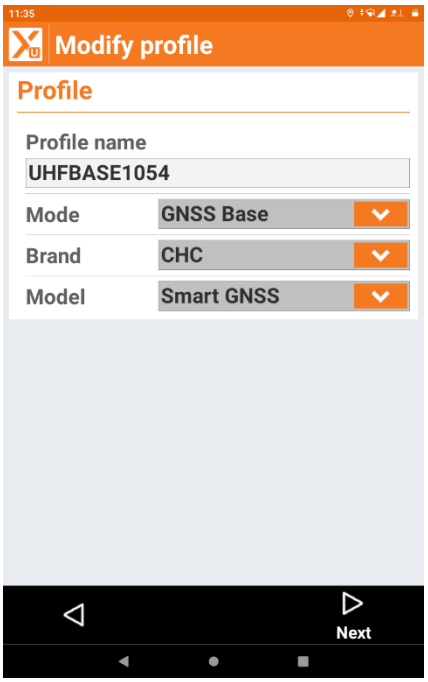
Using Multiple GNSS Rovers with One GNSS Base

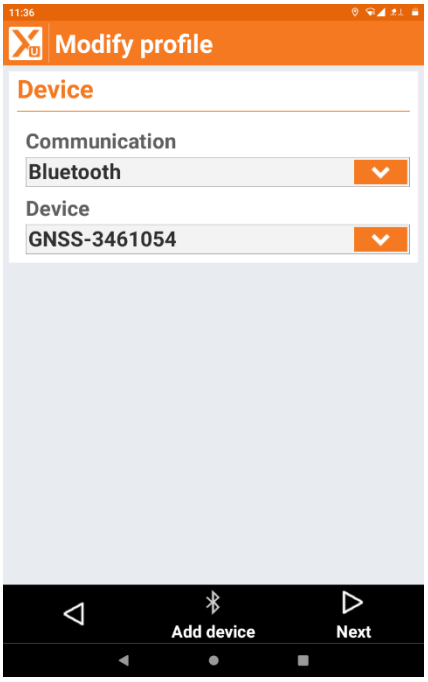


In X-PAD Ultimate Open / Create your Job and go to Settings/GNSS and Total Stations. Select your UHF Base Profile and Modify to review your settings.



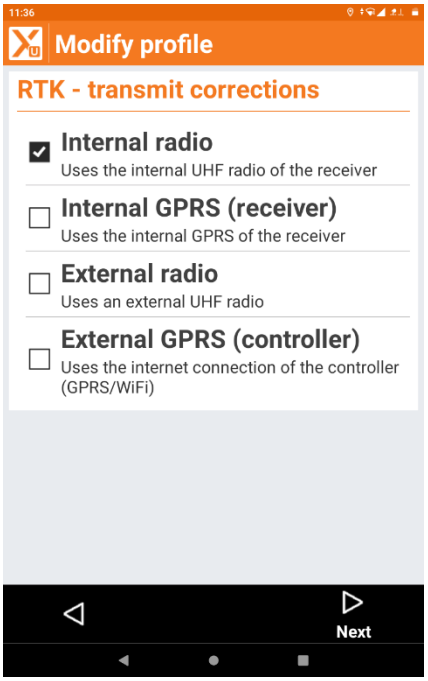
On the first page you will see your Profile Name, Mode, Brand, and Model.

Select Next.



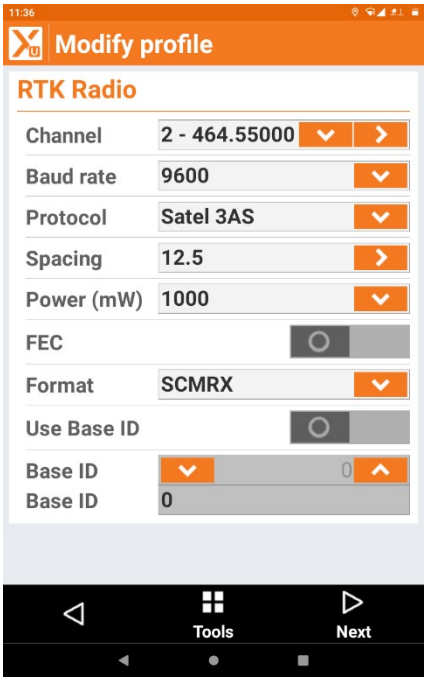
On the Device Page you will now see your Communication Type (Bluetooth) and Device Serial Number.

Select Next.



On the RTK – Corrections Page select Internal Radio.

Select Next.



On the RTK Radio Page.

Select your Channel.

Baud Rate.

Protocol

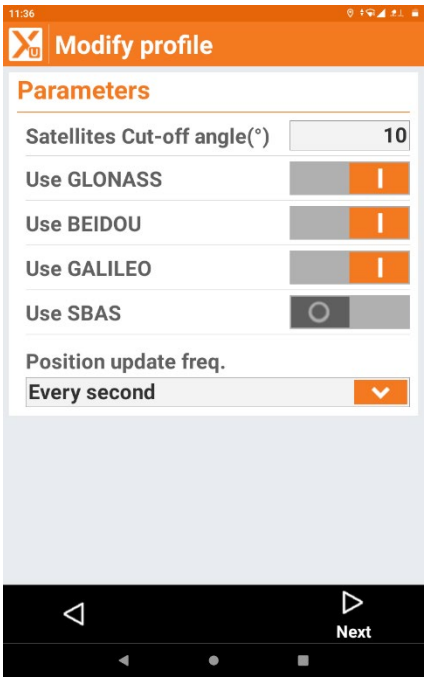
Spacing Power (I am using 1 watt at the Base)

FEC (Forward Error Correction) is turned to the Off position.

Format

No Base ID

Select Next.



On the Parameters Page.

Select your Satellite Cut-off Angle (Elevation Mask)

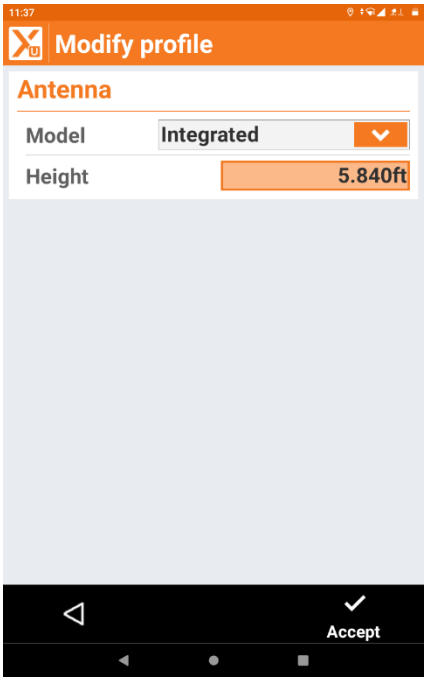
Use GLONASS

USE BEIDOU

USE GALILEO

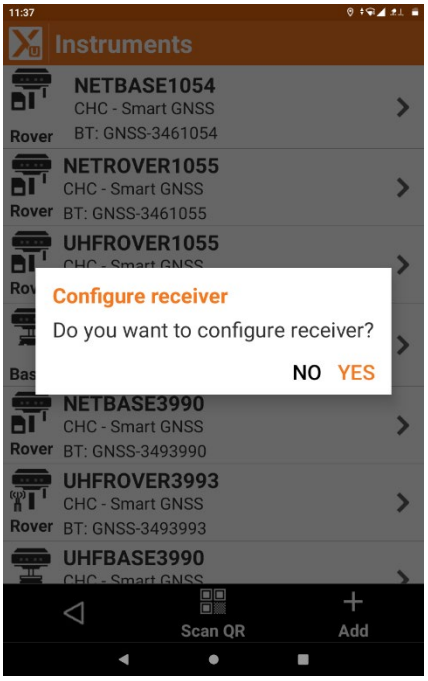
Position Update is set to Every Second.

Select Next.

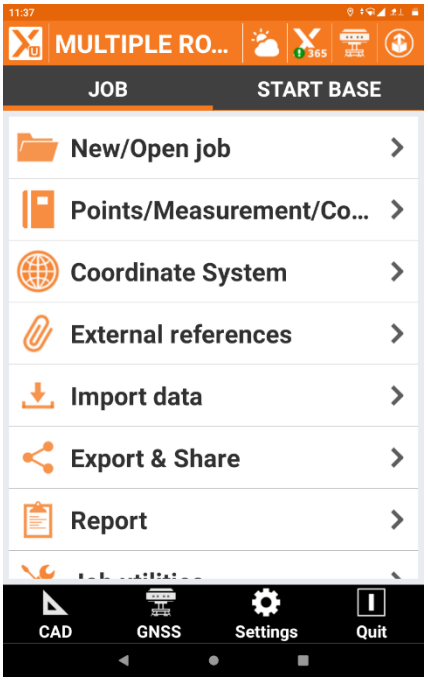


On the Antenna Page, you will have the opportunity to enter the Model and H.I.

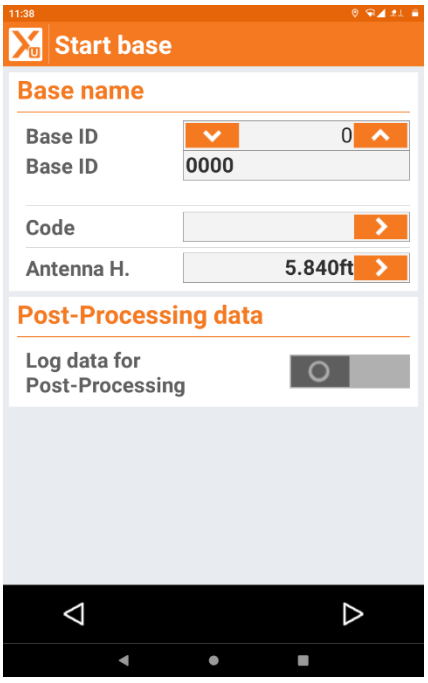
Select Accept.



You will then be asked if you wish to configure the receiver. I have selected “Yes” in order to save my changes.



Returning to the Survey Menu I select Start Base.

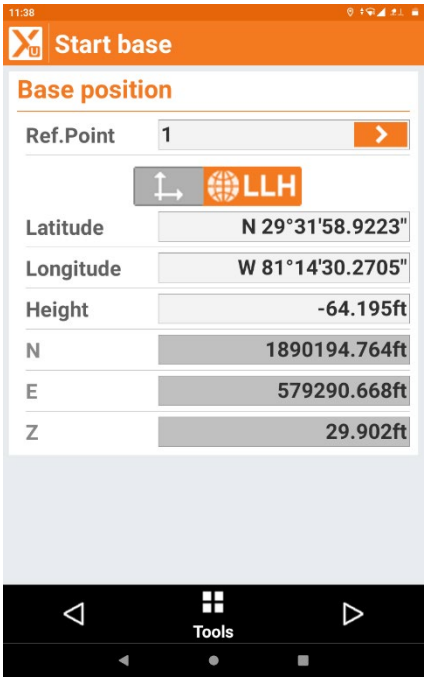


Base ID is 0.

Code is left Blank.

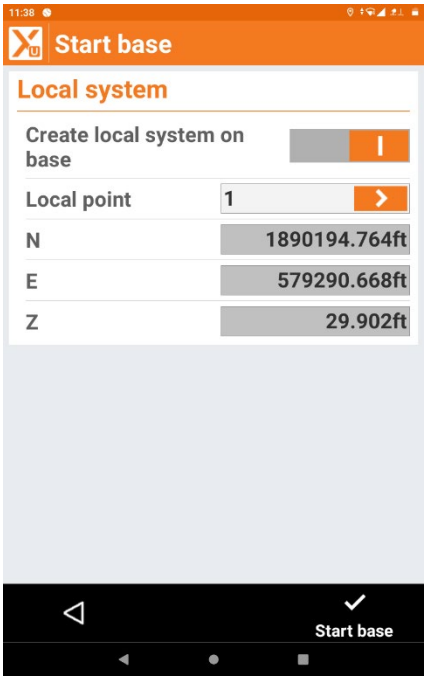
Antenna Height is Measured HI.

Select the Arrow to the right at bottom of screen.



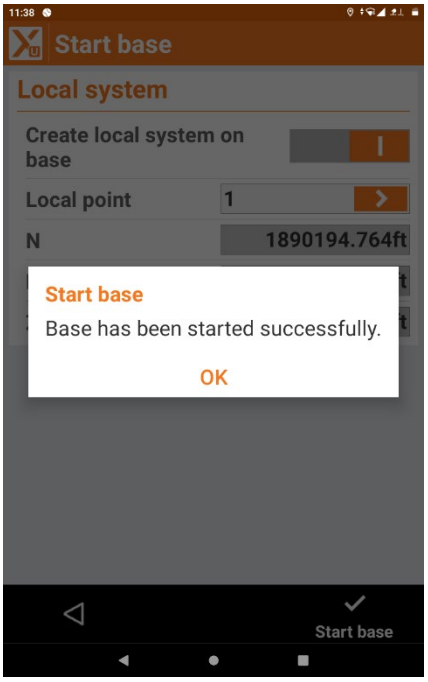
I have selected a Known position that I established from an RTN and selected that point number.

Then select the Arrow to the right.

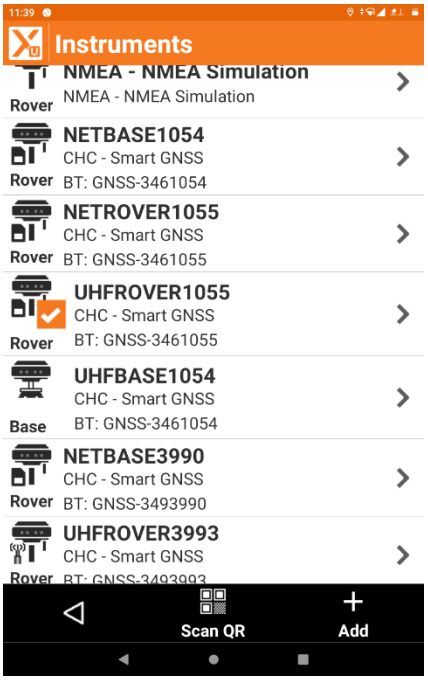


I have also selected to create a Local System on Base (Grid to Ground) by entering the Base Point Number that was established earlier.

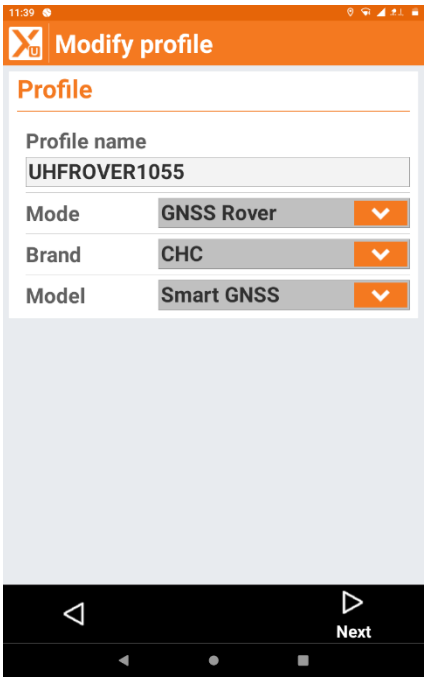
Then select Start Base.



Once the Base has been stared you will see the message that Base has been started successfully.

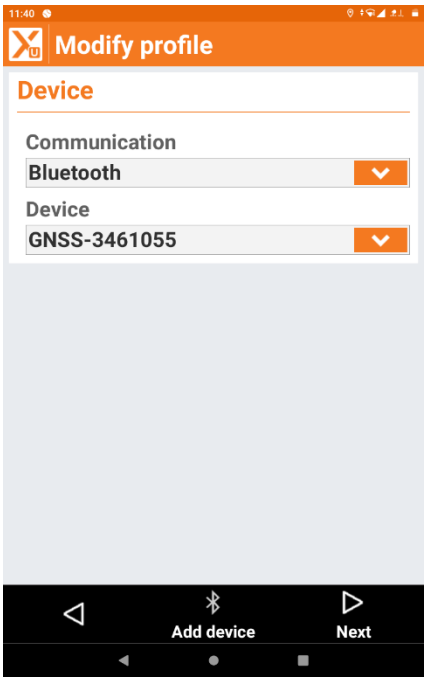


Then returning to Settings / Instruments, select your UHF Rover Profile and Modify.



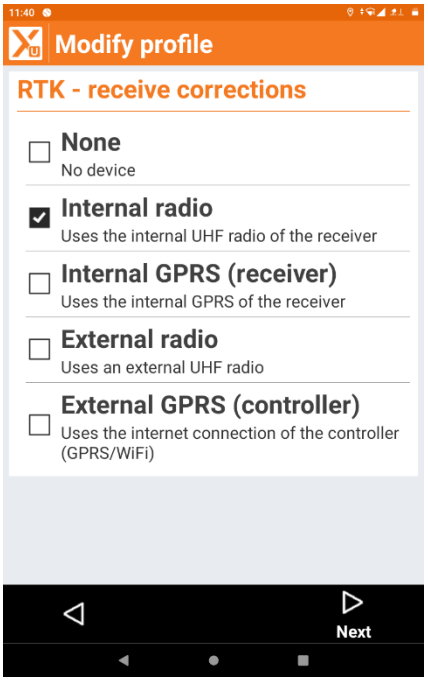
On the Profile Page you will see the Name, Mode, Brand, and Model.

Select Next.



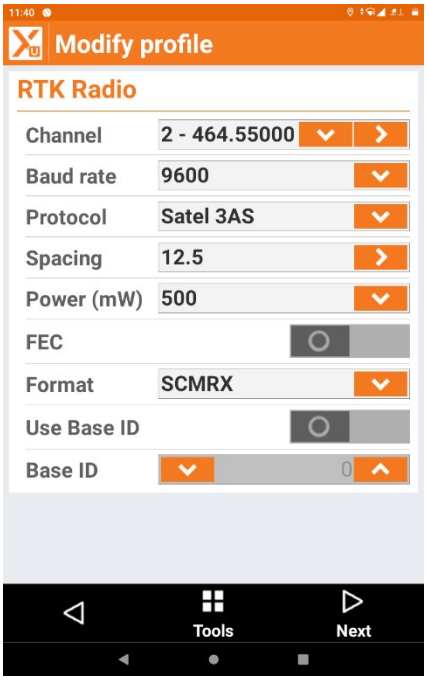
On the Device Page you will now see your Communication Type (Bluetooth) and Device Serial Number.

Select Next.



On the RTK receive Corrections Page, select Internal Radio just as you did when setting the Base.

Select Next.

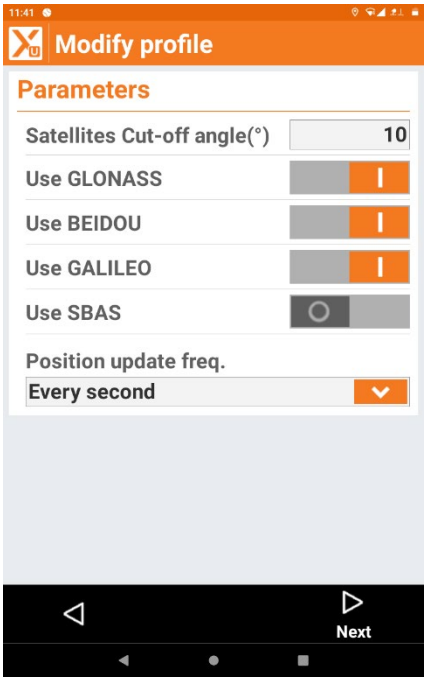


On the RTK Radio Page.

Ensure all your settings are the same as the Base Receiver.

On the rover I decrease the power to half watt.

Select Next.



On the Parameters Page I have my settings set the same as the Base.

Satellite Cut-Off Angle is 10 Degrees.

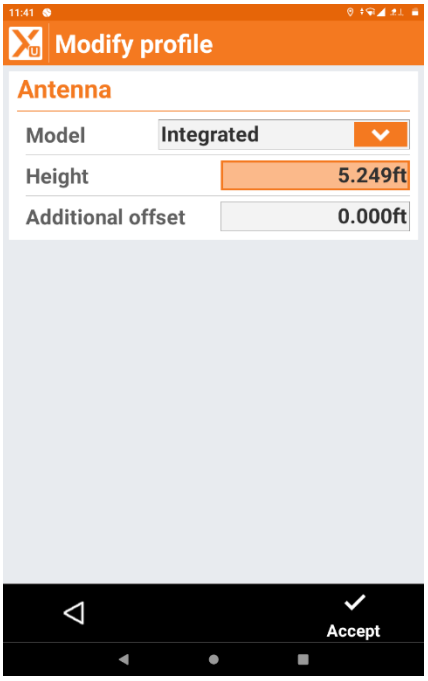
Use GLONASS

Use BEIDOU

Use GALILEO

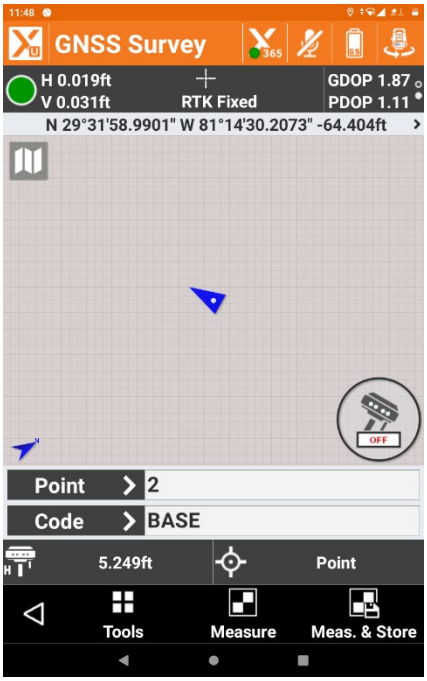
Position Update is set to every second.

Select Next.



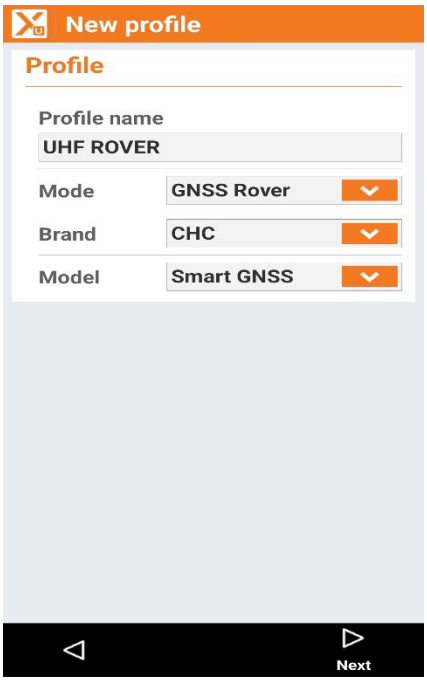
On the next page I enter the HI of my Rod.

Select Accept. And Select Yes to Configure Receiver.



Selecting the Survey Points Menu you will now see RTK Fixed at the Top Center of the Screen.

Adding Second Rover to Base



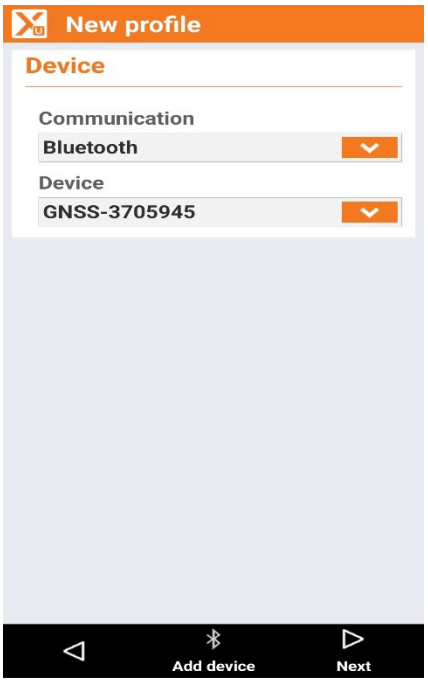
Using another Data Collector and Second GNSS Rover.

Create / Open a Job

Go Settings/GNSS and Total Stations

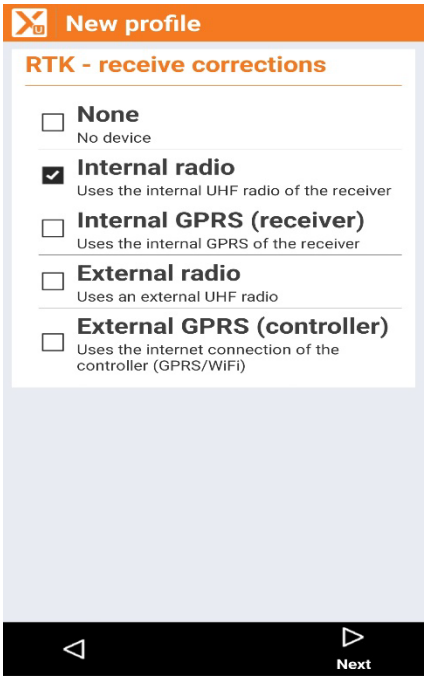
Create or Modify a UHF Rover Profile with Name, Brand, and Model.

Select Next.



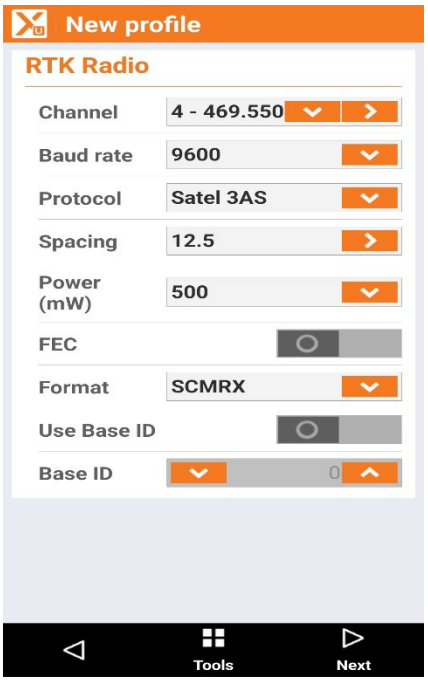
On the Device Page you will now see your Communication Type (Bluetooth) and Device Serial Number.

Select Next



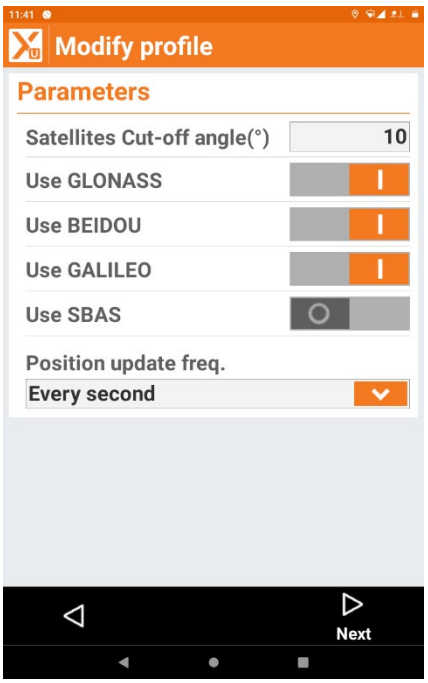
On the RTK Corrections Page select Internal Radio.

Select Next.



On the RTK Radio Page ensure your Channel, Baud Rate, Protocol, Spacing, Power at half watt, FEC in Off Position, Message Type is the same as the Base, and No Base ID is used.

Select Next.



On the Parameters Page I have my settings set the same as the Base.

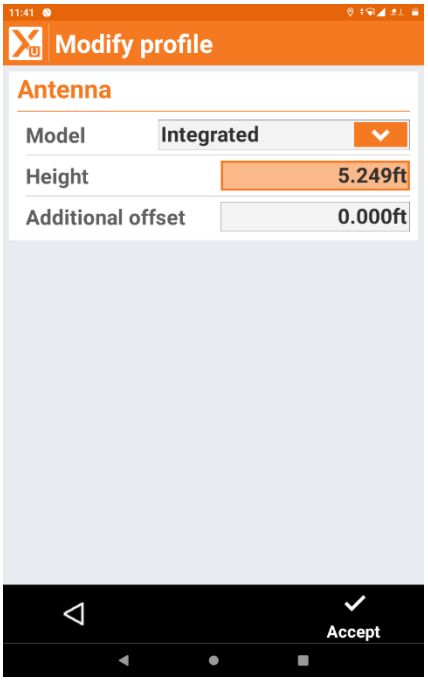
Satellite Cut-Off Angle is 10 Degrees.

Use GLONASS

Use BEIDOU

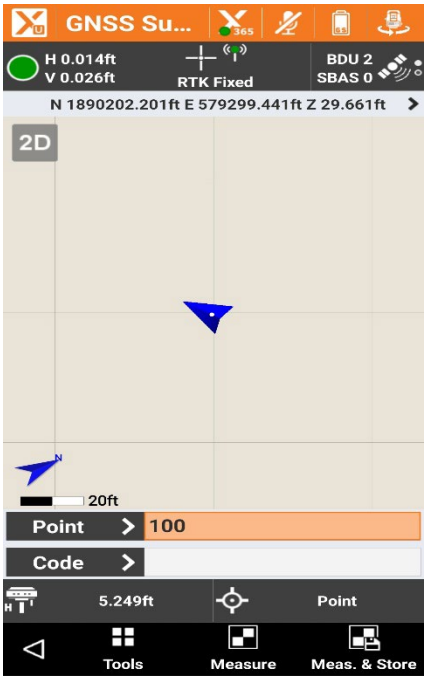
Use GALILEO

Position Update is set to every second.



On the Antenna Page I enter the HI of my Rod.

Select Accept.



Returning to the Survey Points Screen I now see RTK Fixed in the Top Center of the Screen.

You now have added multiple Rovers to Communicate with a Single Base Receiver.

It is not necessary to set the Base with Second Rover once you have the Base Set and Broadcasting.