

SETUP OF ROVER (R8s)

Step 1: Turn on the Receiver R8s Rover and notice the light blinking.

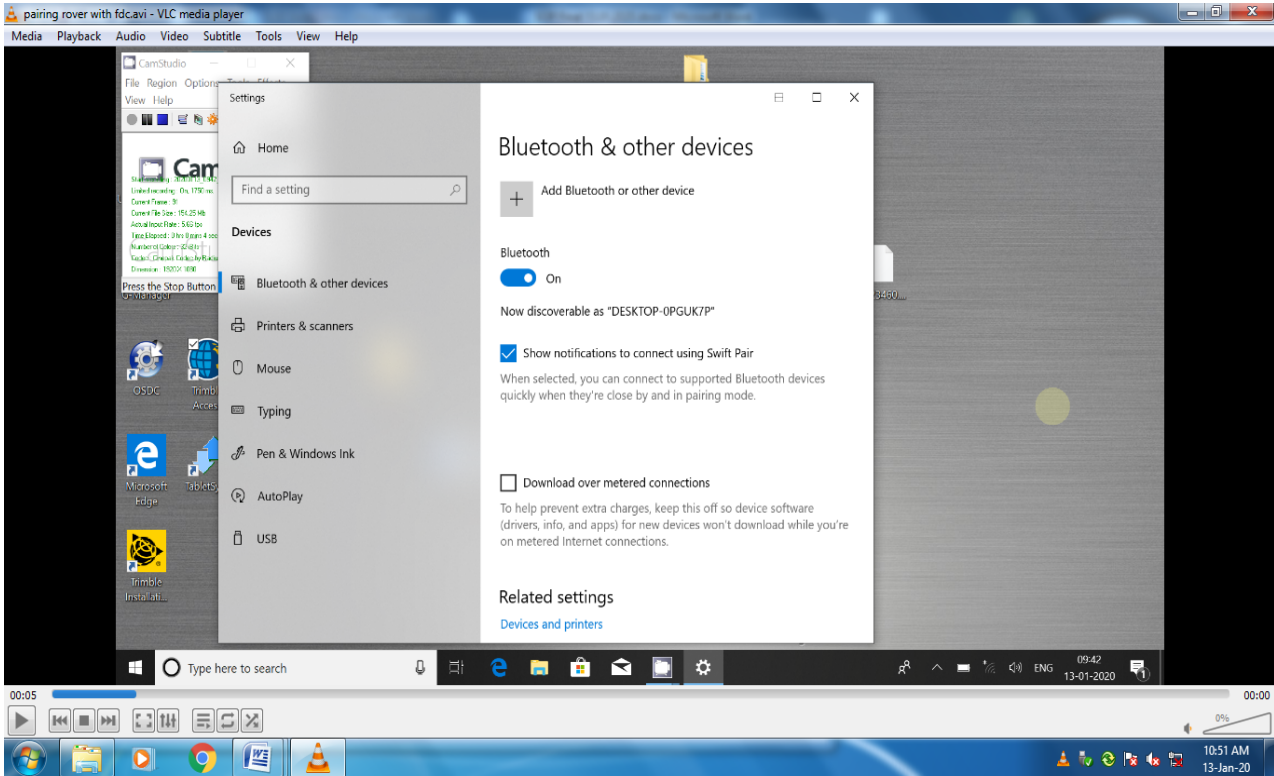
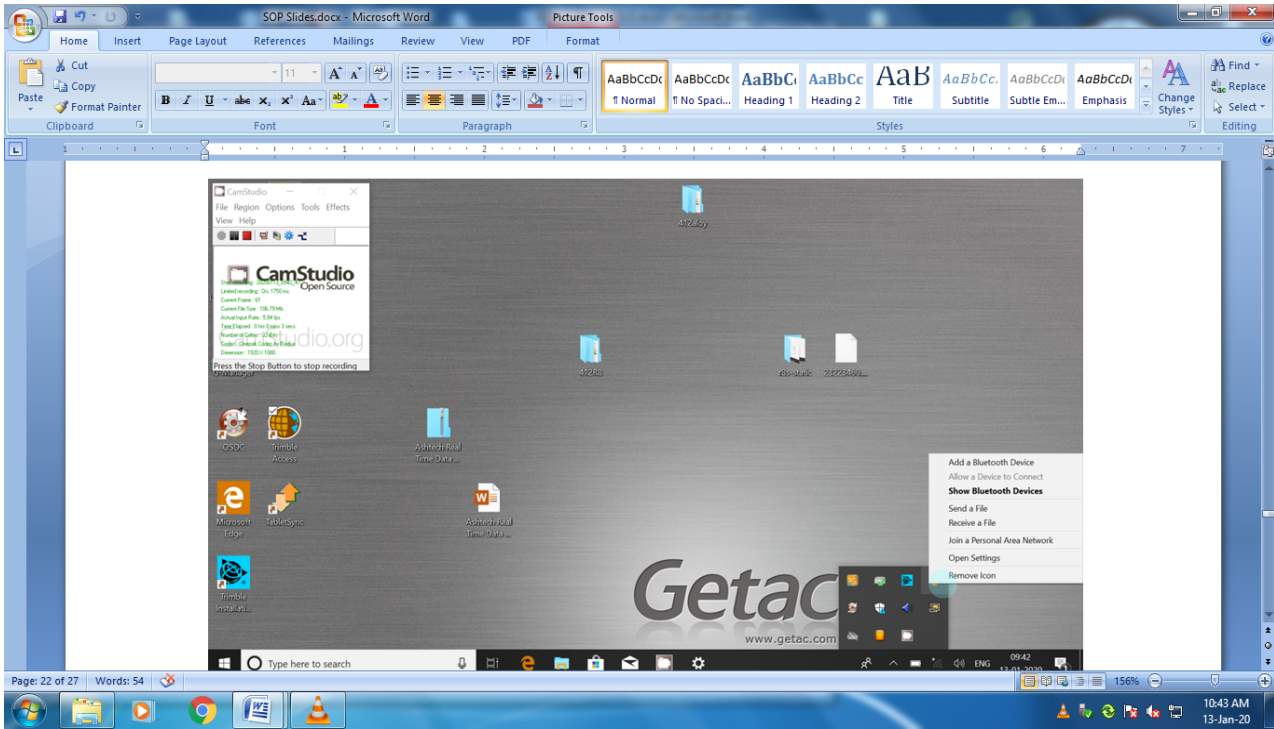


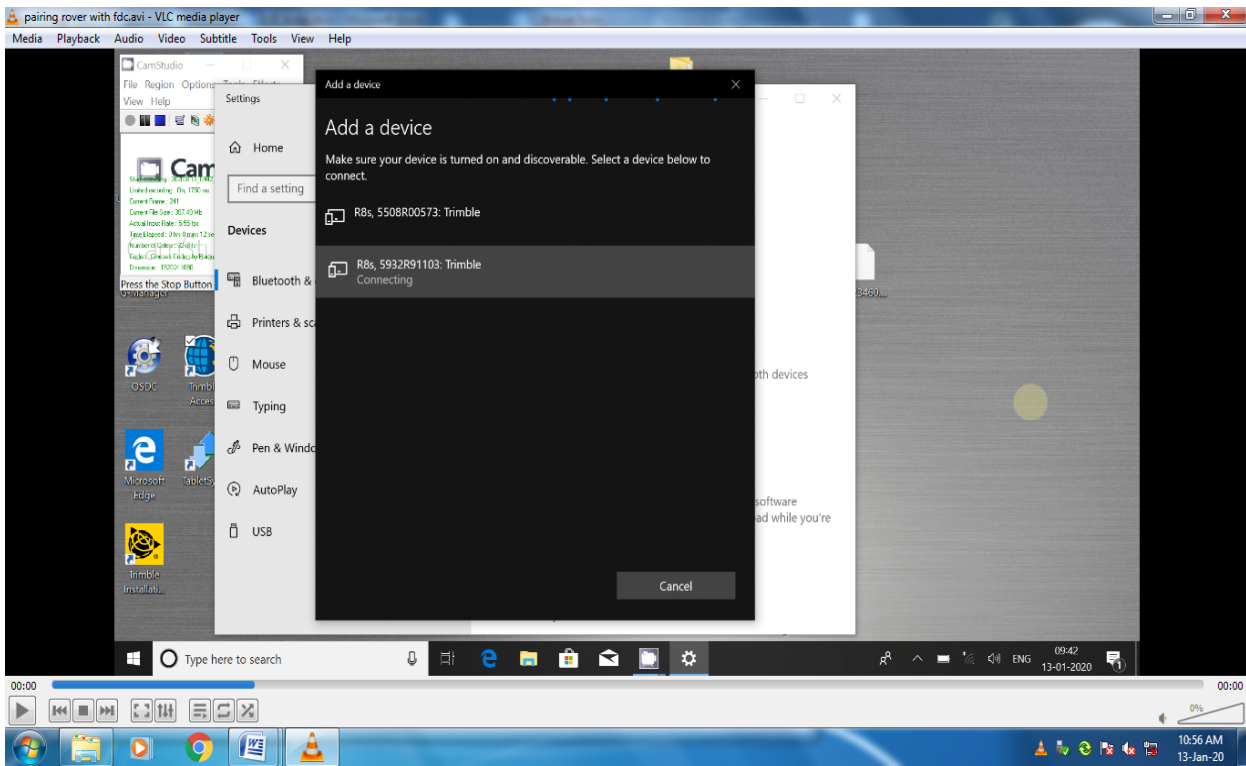
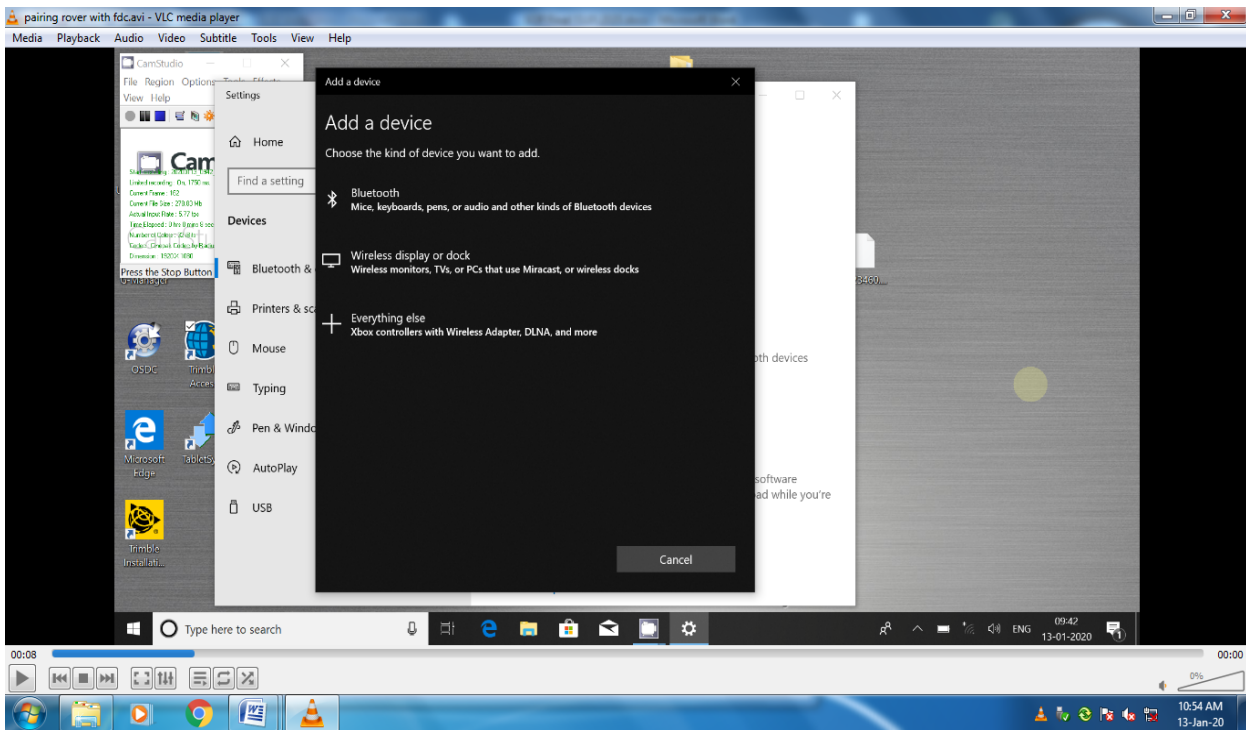
Step 2: Mount the Receiver R8s Rover on the rod provided and place it vertical exactly over the Rover station mark with the help of bipod.

Step 3: Check the verticality of the rod viewing the bubble. Adjust the bipod legs if necessary.

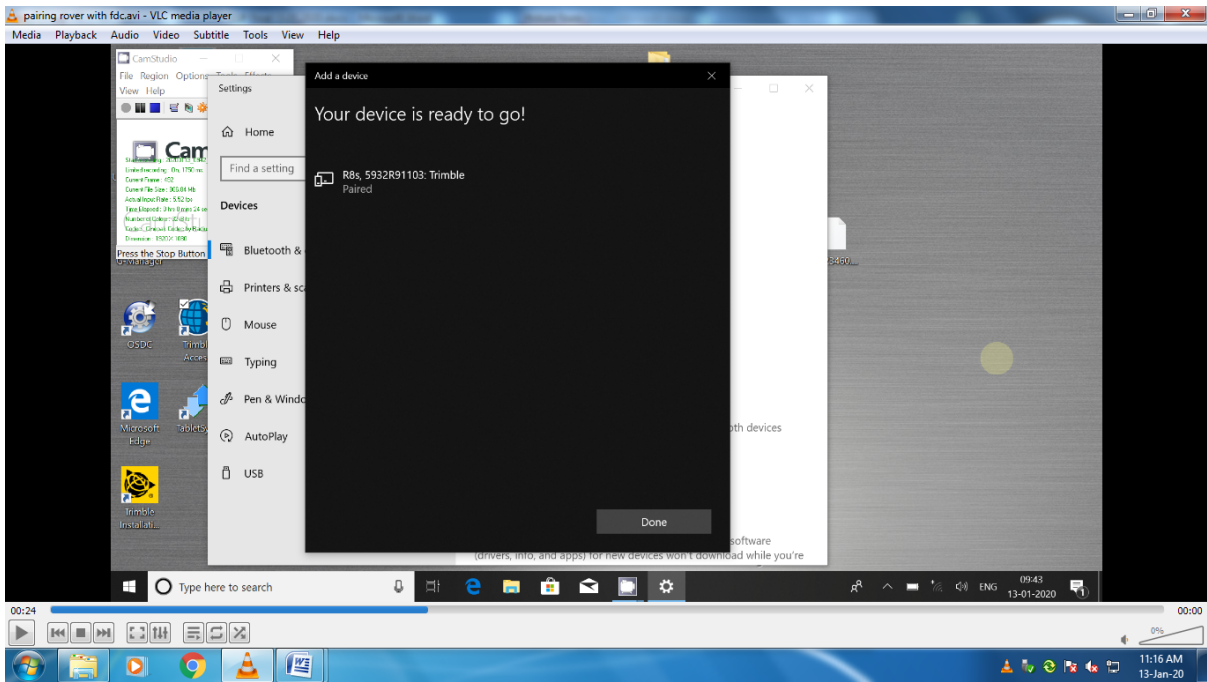
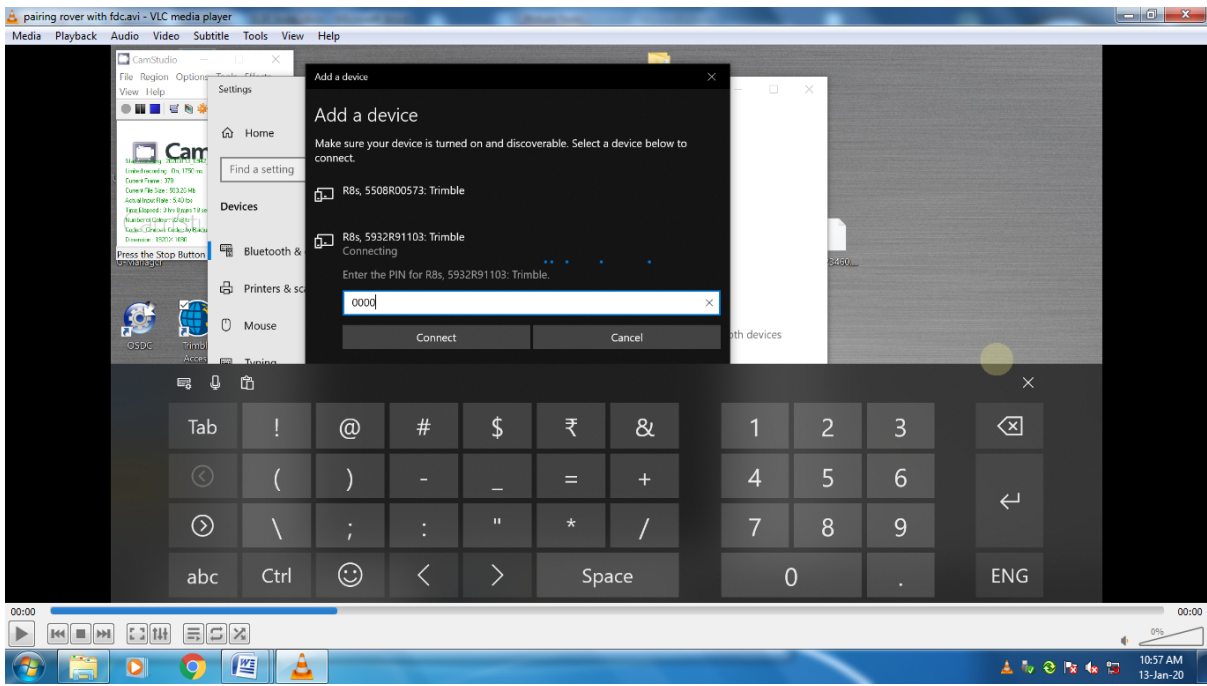
Step 4: Connect Field Data Collector to internet.

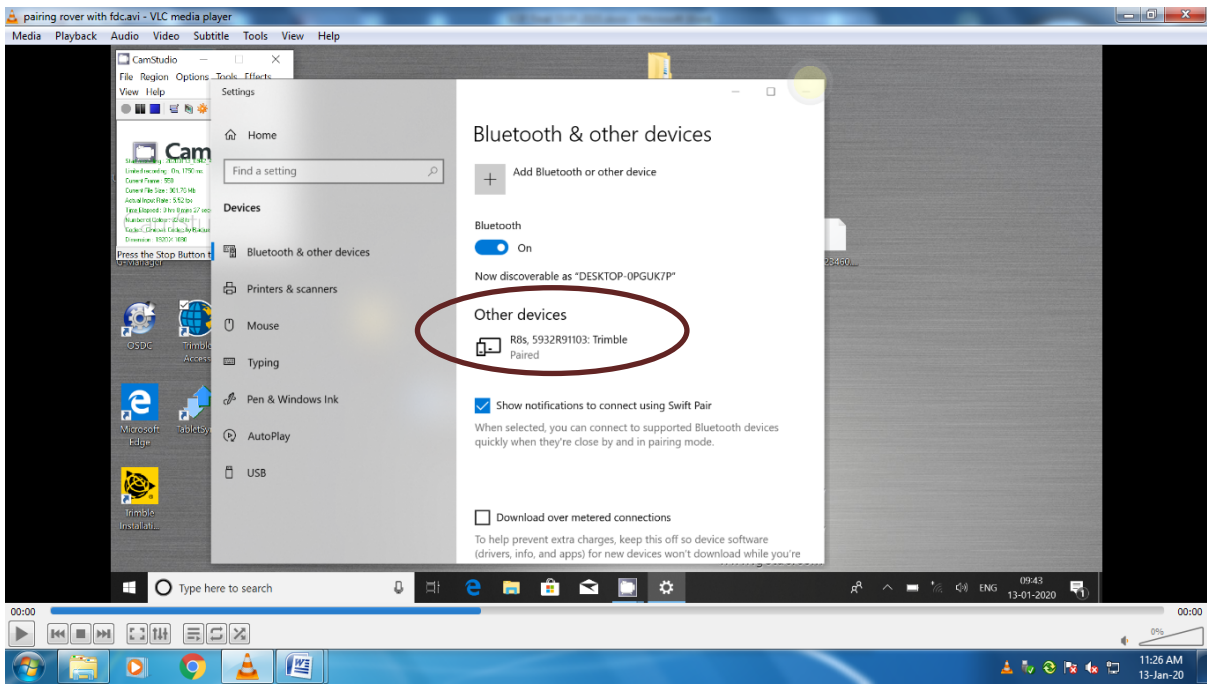
Step 5: Pair Field Data Collector to the receiver R8s Rover with Bluetooth connectivity. For this go to Bluetooth icon in Field Data Collector, Add and pair Bluetooth device i.e., Rover, by steps shown in the following slides serially.



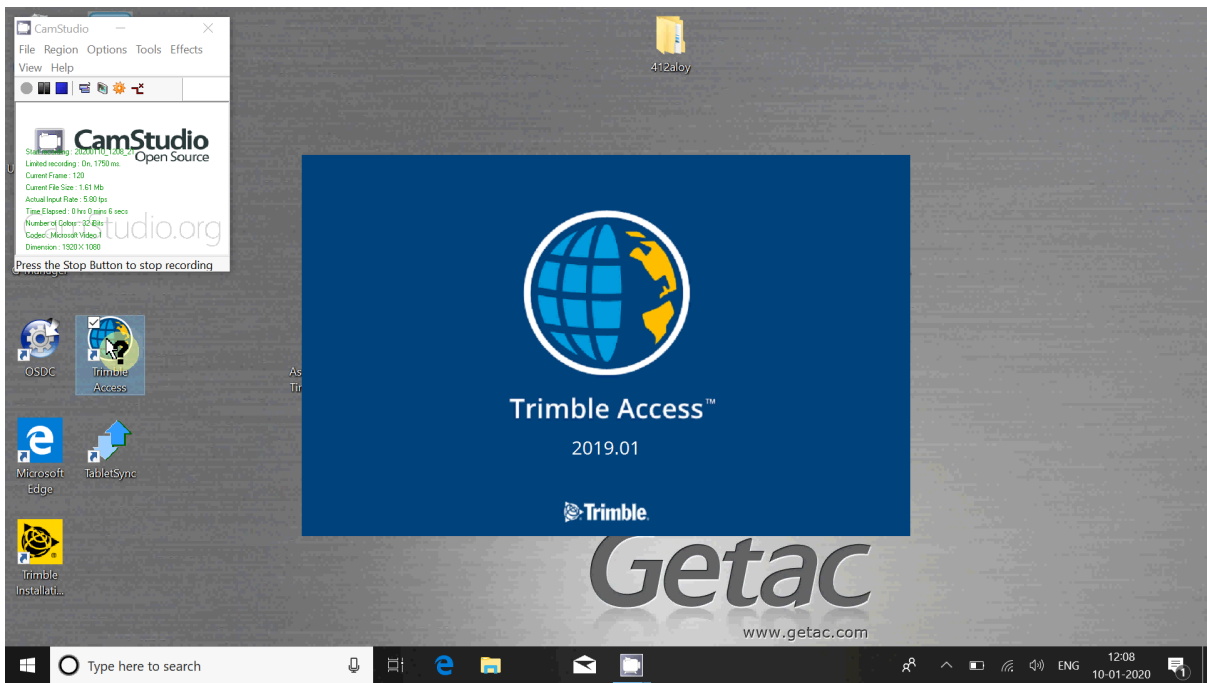


Step 6: Enter default PIN (e.g., in case of Trimble R8s instrument, PIN is 0000) and click Connect tab. Your device is ready to go! message will be displayed for paired device R8s receiver and will reflect in the Settings window.

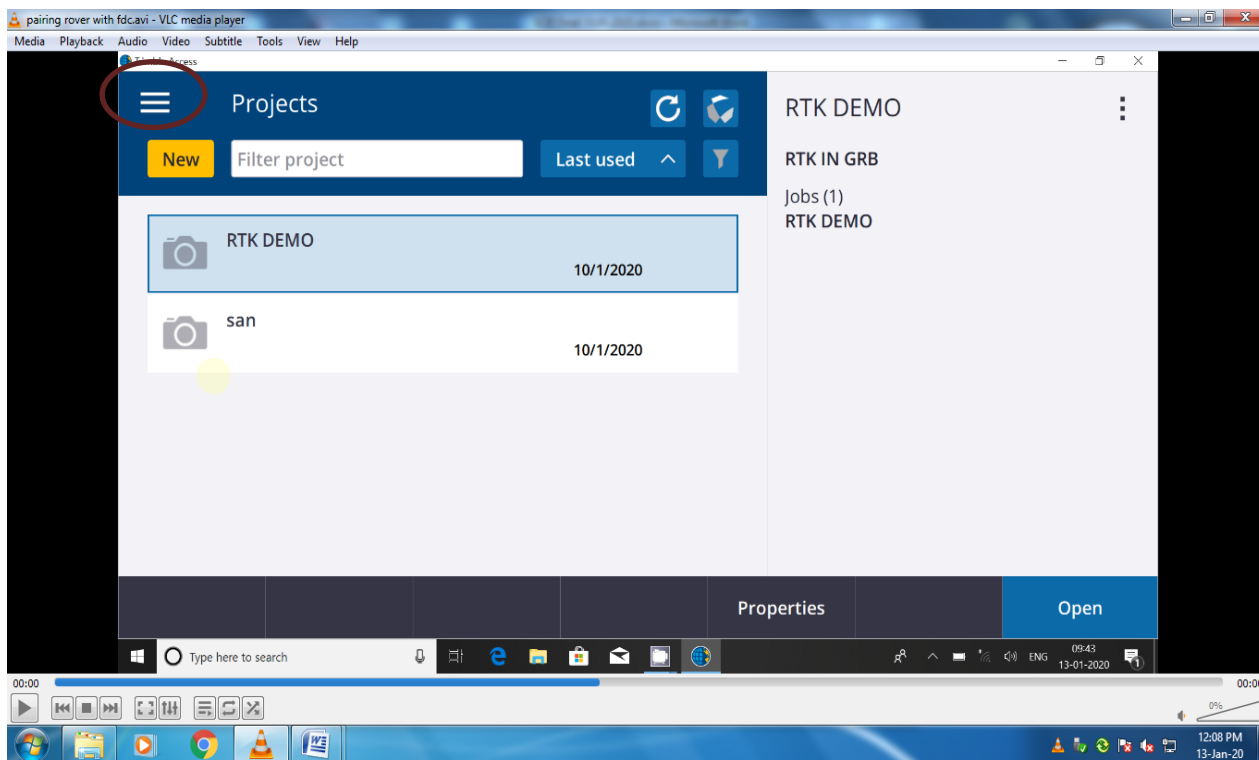




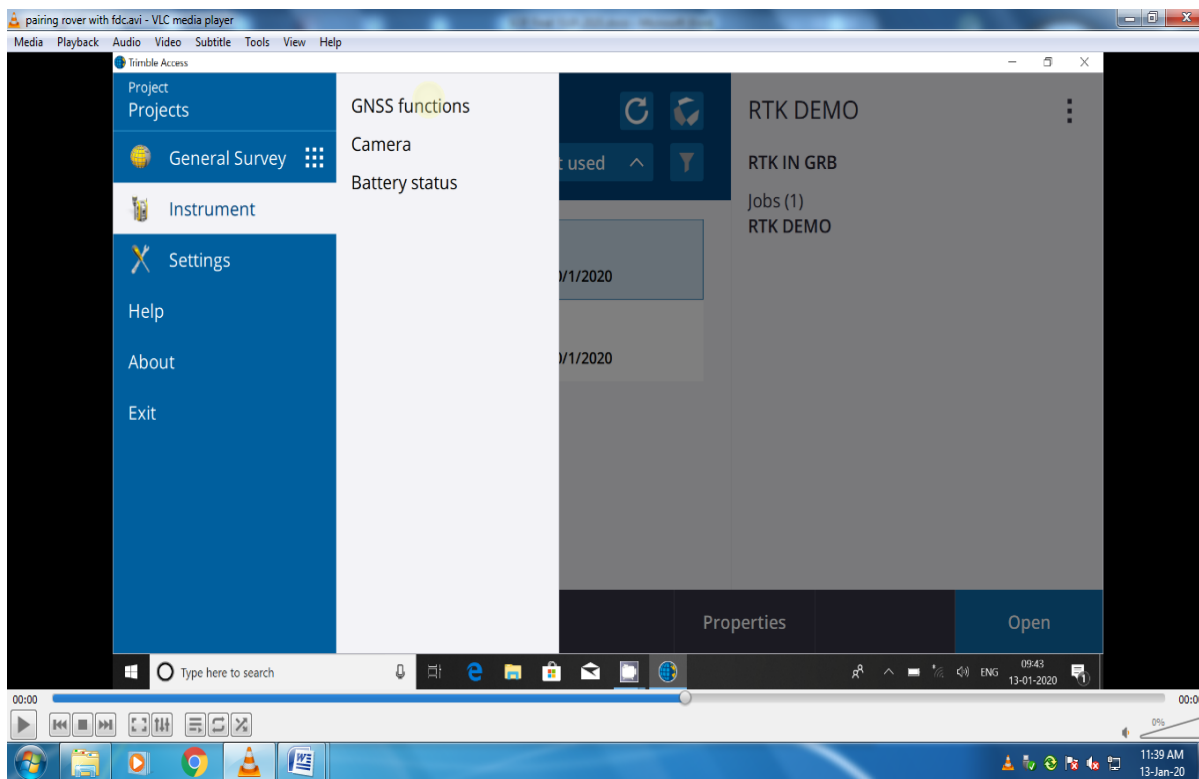
Step 7: Open Trimble Access application on the tab.



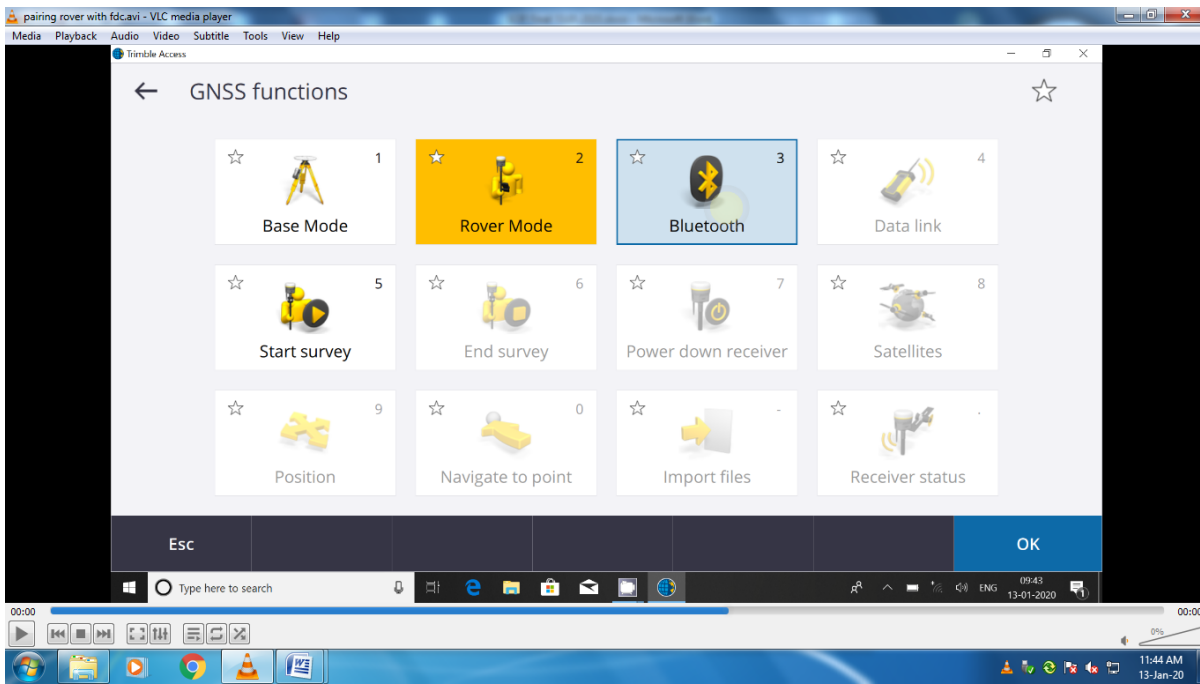
Step 8: Main window will open up. Click on NW corner tab as shown in the following slide.



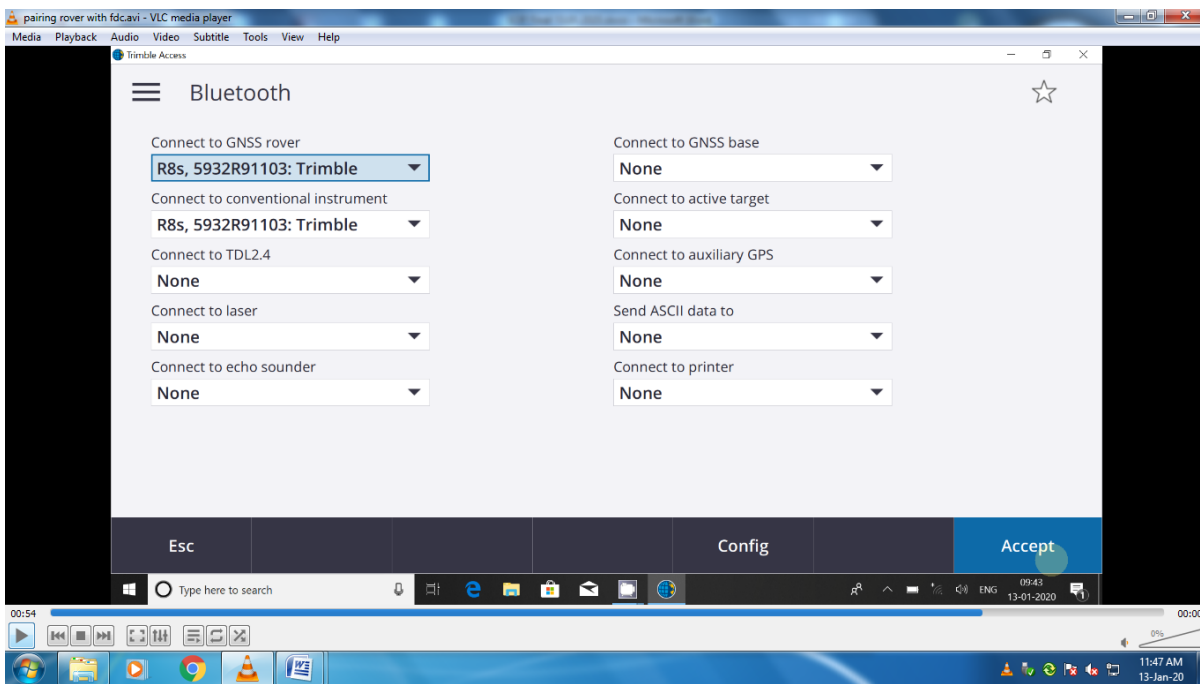
Step 9: Click Instrument and GNSS functions.



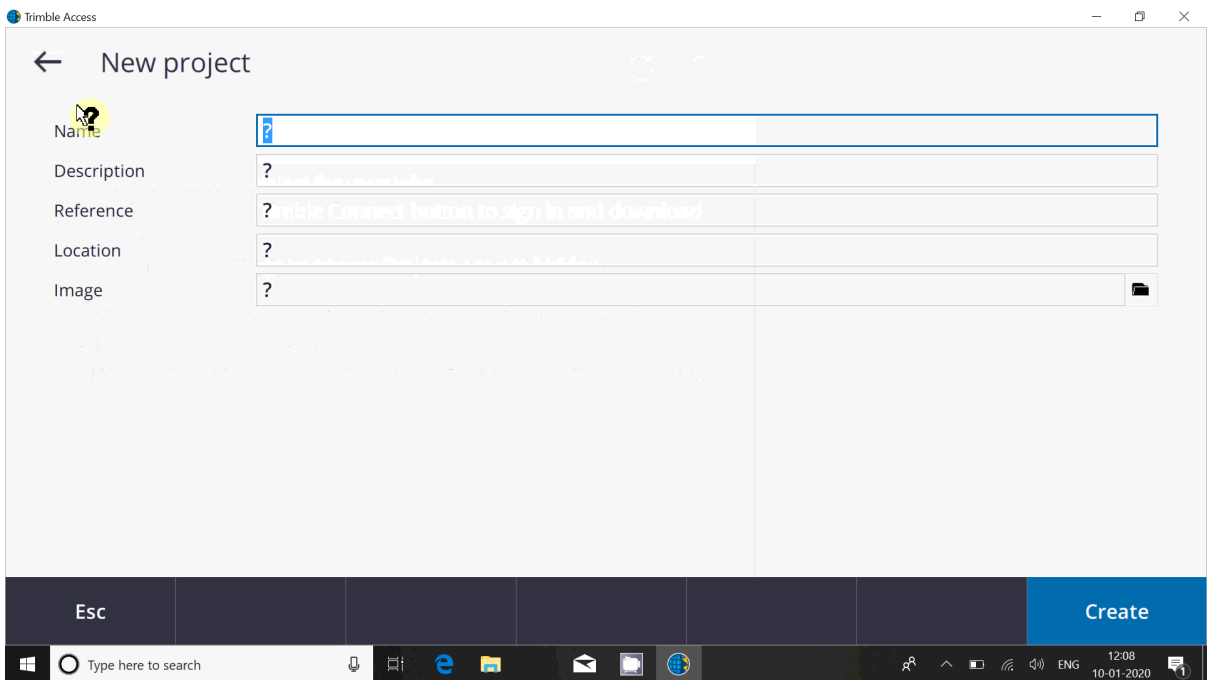
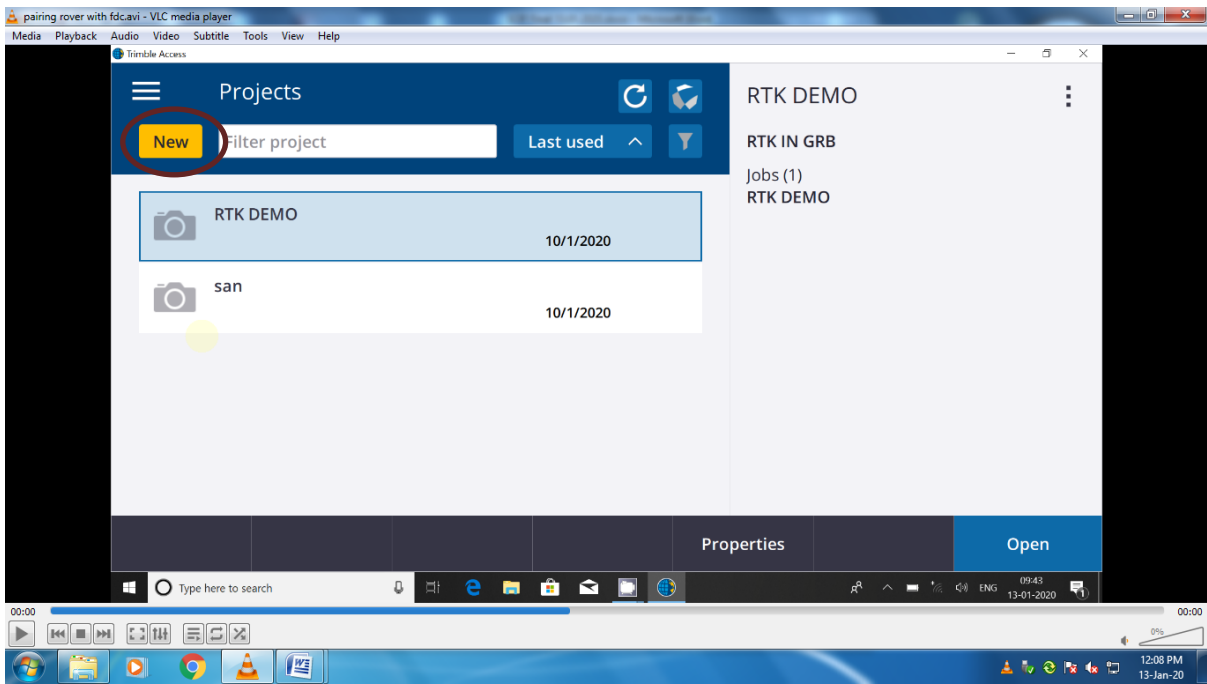
Step 10: Choose Bluetooth icon and click OK tab as shown below. Bluetooth window will open up.



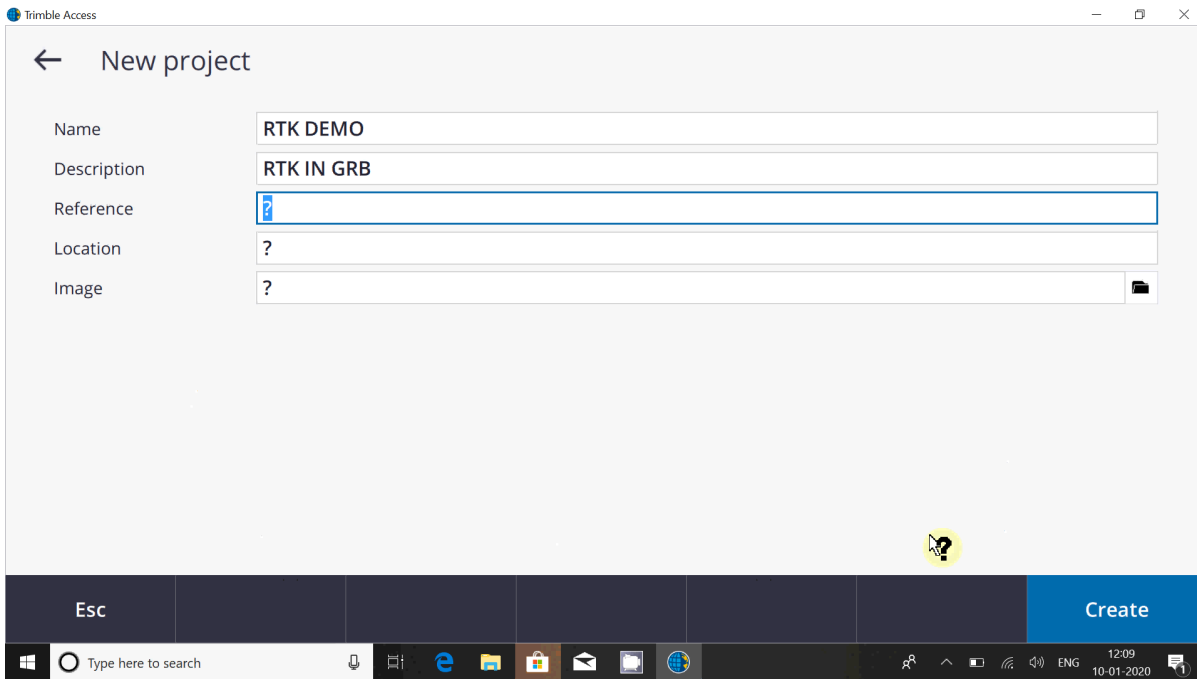
Step 11: Select paired Trimble R8s Rover receiver, which is just paired, for first two drop down menus as shown below and click Accept tab. Press Esc tab to return to main menu.



Now Getac tab and Rover receiver both have been paired, connected, configured and ready to use. Step 12: Click New tab to create a new project. New project window will open up.

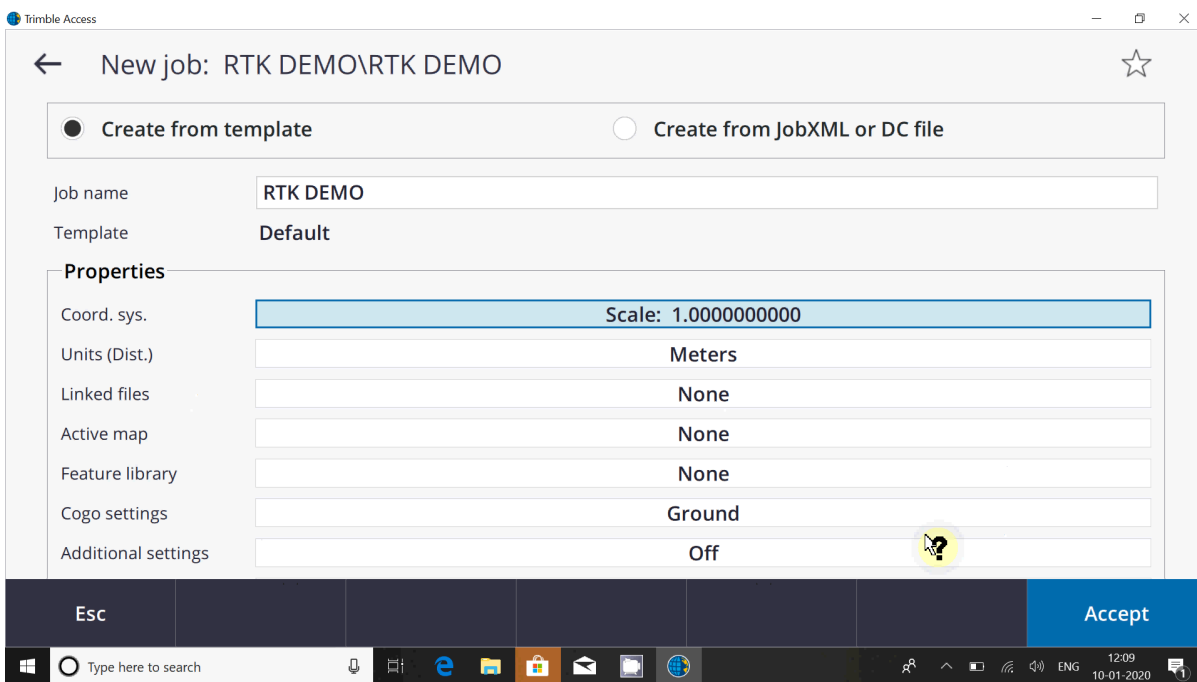


Step 13: Provide a Name and Description (optional) to the project.

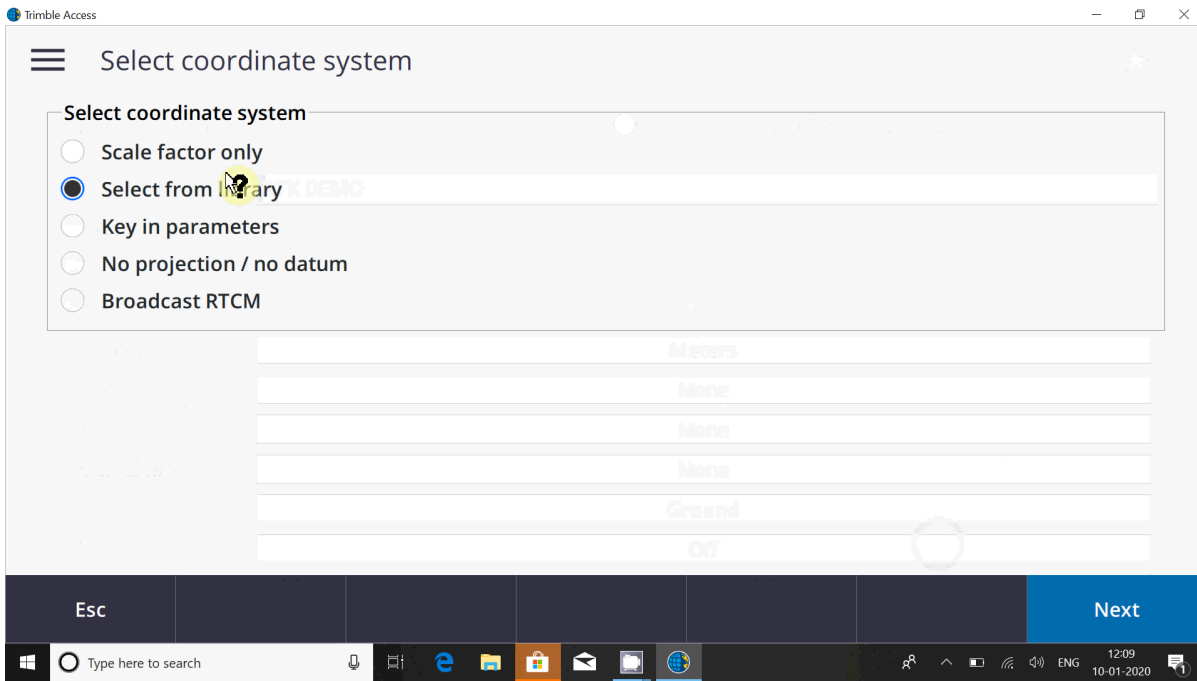


Step 14: Click Create tab at SE corner. New job window will open up.

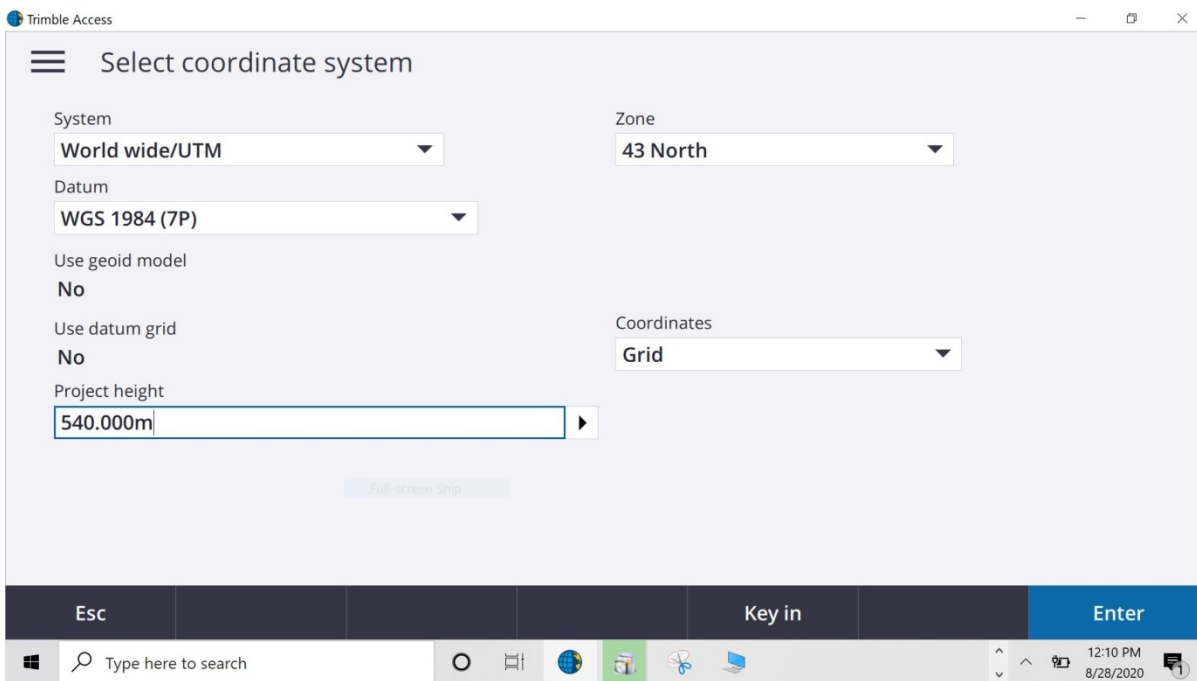
Step 15: Provide a job name and click on Coord. Sys. Select coordinate system window will open up.



Step 16: Click radio button of Select from library as shown below and click Next tab.



Step 17: Select System, Zone, Datum and fill the approx. height of the terrain and click store tab.



Step 18: Click Enter tab at SE corner.

Click on units and check the details as follows

Click on Additional settings and check the details as follows

Trimble Access

Job properties: kgdc

Job path C:\ProgramData\Trimble\Trimble Data\Projects\vijay k\kgdc.job

Properties

Coord. sys.	43 North (World wide/UTM)
Units (Dist.)	Meters
Linked files	None
Active map	None
Feature library	None
Cogo settings	Ground
Additional settings	CSV file
Media file	Previous point
Reference	?
Description	?

Esc Accept

Type here to search 12:17 PM 8/28/2020

Click on accept

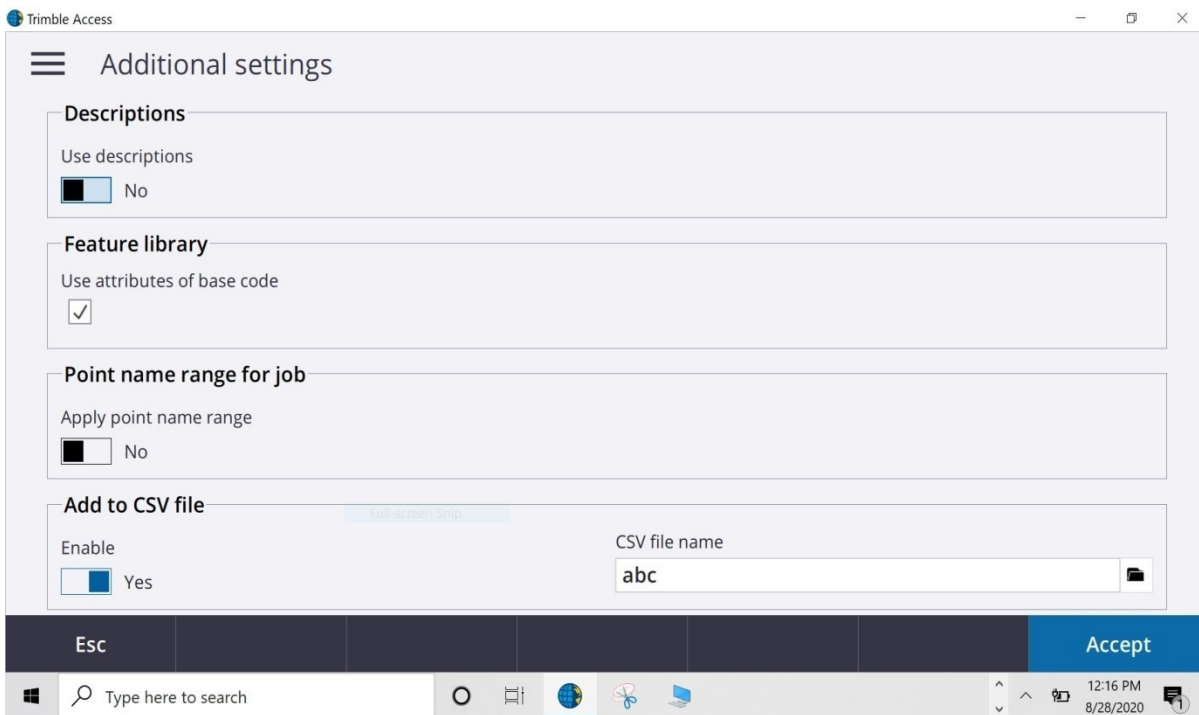
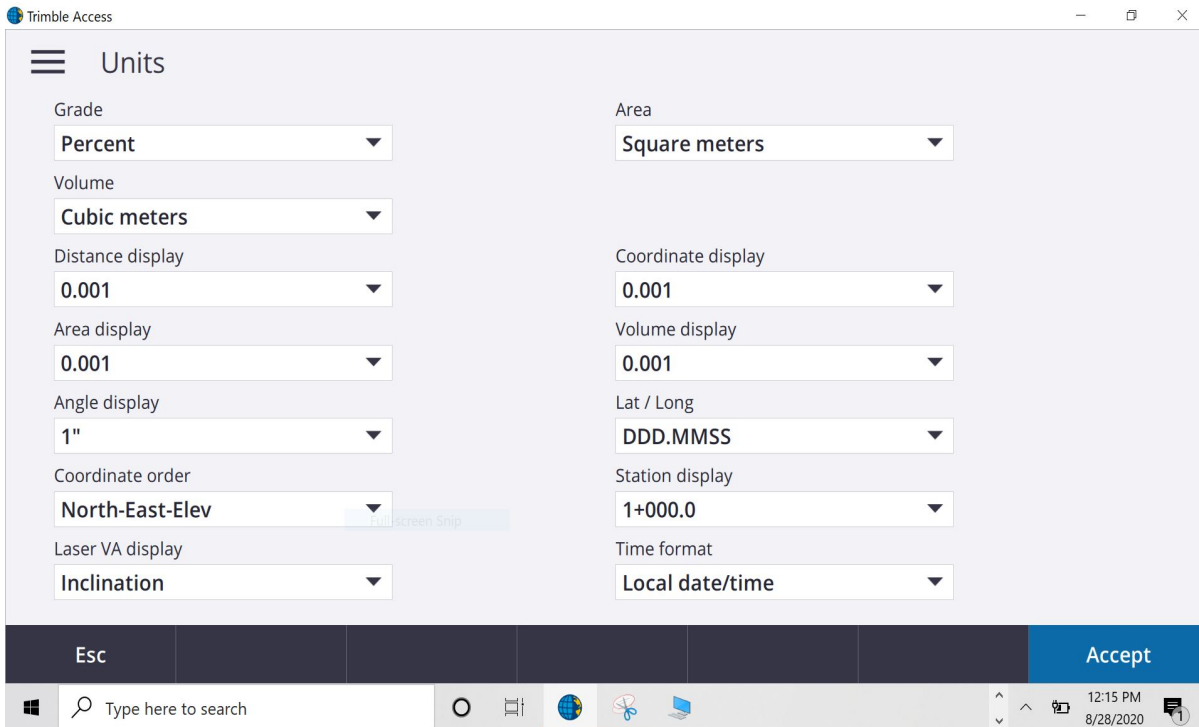
Trimble Access

Units

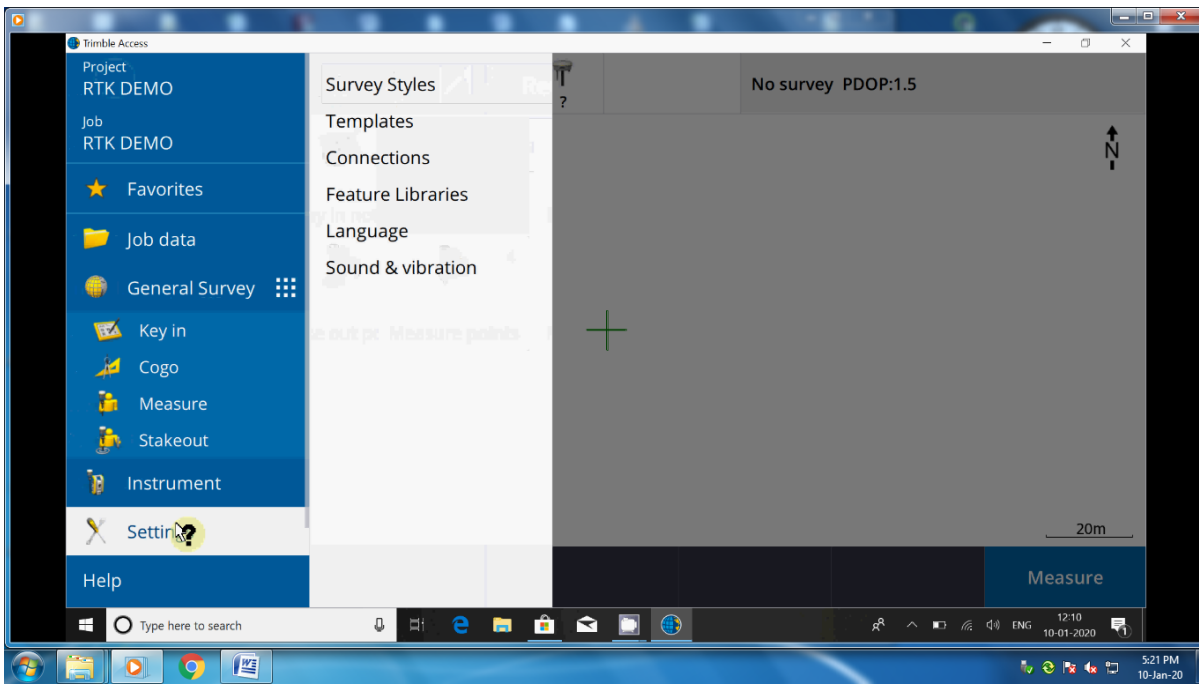
Distance and grid coords	Meters	Height	Meters
Angles	DDD.MMSS	Quadrant bearings	<input type="checkbox"/>
Temperature	Celsius	Pressure	Millibar
Grade	Percent	Area	Square meters
Volume	Cubic meters	Coordinate display	0.001
Distance display	0.001	Volume display	0.001
Area display	0.001		

Esc Accept

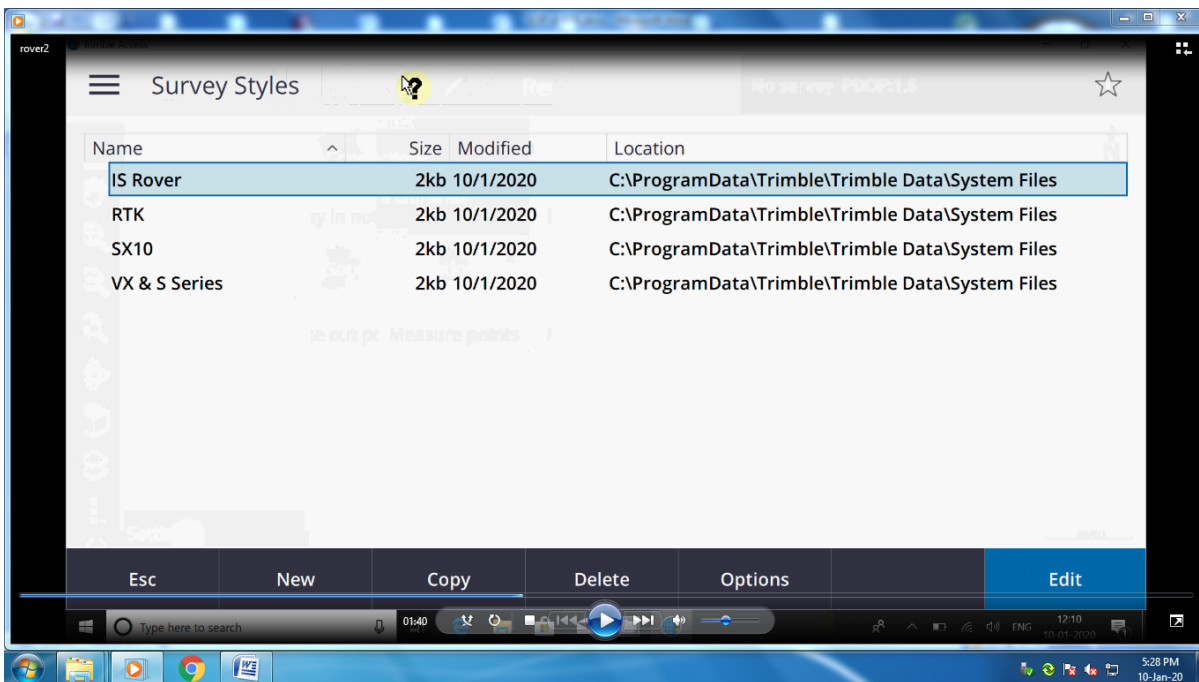
Type here to search 12:13 PM 8/28/2020



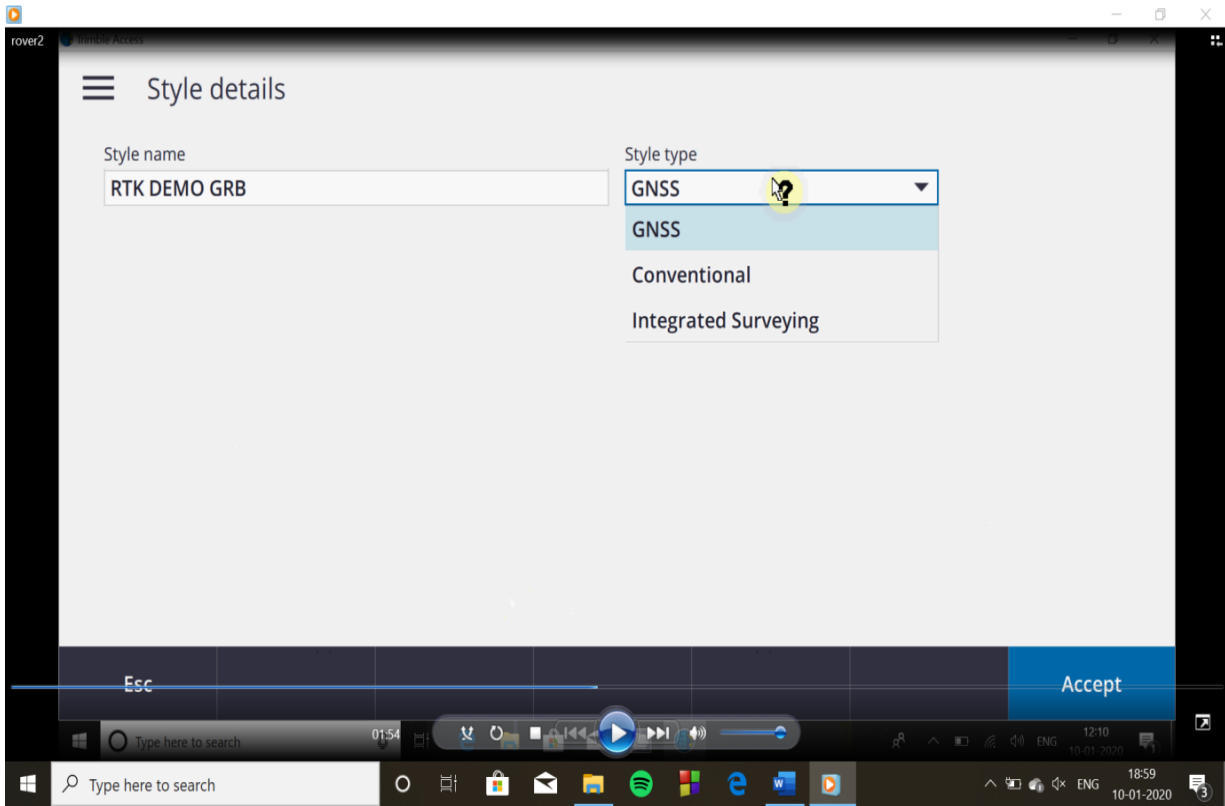
Step 19: Click on the NW corner tab on the main screen to select Settings and then Survey Styles. Survey Styles window will open up.



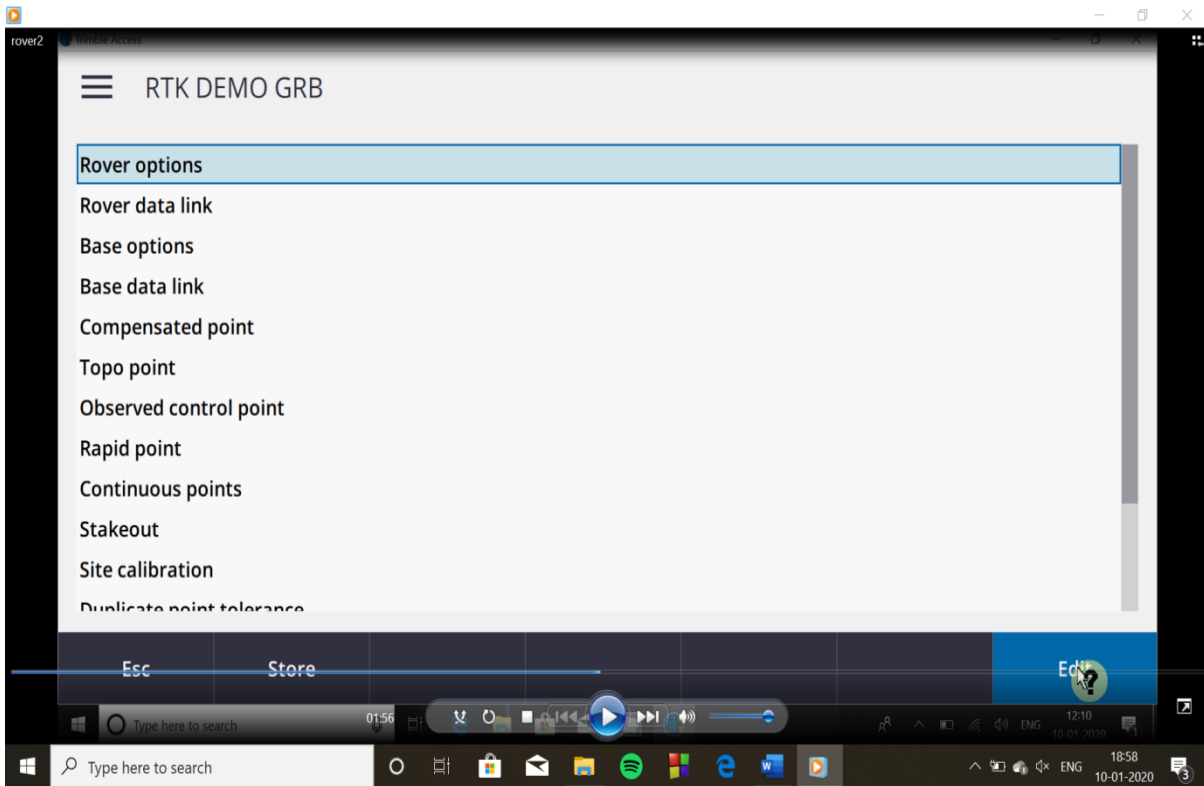
Step 20: Click New tab. Style details window will open up.



Step 21: Provide the Style name and Survey type. Click Accept tab. New window will open up.



Step 22: Click Edit tab for Rover options. Rover options window will open up.



Step 23: Provide the information as shown in the slide below.

(Broadcast format for VRS : VRS(RTCM)
FKP : FKP(RTCM)
MAC : RTCM3NET

for VRS(RTCM) the mount point to be selected RTCM_VRS in step 32
for FKP(RTCM) the mount point to be selected RTCM_FKP in step 32
for RTCM3NET the mount point to be selected RTCM_MAC in step 32

The screenshot shows the 'Rover options' dialog box. The 'Survey type' is set to 'RTK' and the 'Broadcast format' is set to 'VRS (RTCM)'. The 'Antenna' section includes 'Type' (R8s Internal), 'Antenna height' (?), 'Serial number' (?), and 'Measured to' (Bottom of antenna mount). The 'Part number' is 97080-xx. The 'Store points as' is 'Positions' and the 'Elevation mask' is '10°'. The bottom of the dialog has an 'Esc' button and an 'Accept' button.

The screenshot shows the 'Rover options' dialog box. The 'Survey type' is set to 'RTK' and the 'Broadcast format' is set to 'FKP (RTCM)'. The 'Antenna' section includes 'Type' (R8s Internal), 'Antenna height' (2.000m), 'Serial number' (?), and 'Measured to' (Bottom of antenna mount). The 'Part number' is 97080-xx. The 'Elevation mask' is '10°' and the 'PDOP mask' is '6.0'. The bottom of the dialog has an 'Esc' button and an 'Accept' button.

Trimble Access

☰ Rover options

Survey type: **RTK** ▼

Broadcast format: **RTCM3Net** ▼

Antenna

Type: **R8s Internal** ▼

Measured to: **Bottom of antenna mount** ▼

Antenna height: **2.000m** ▶

Part number: **97080-xx**

Serial number: **?**

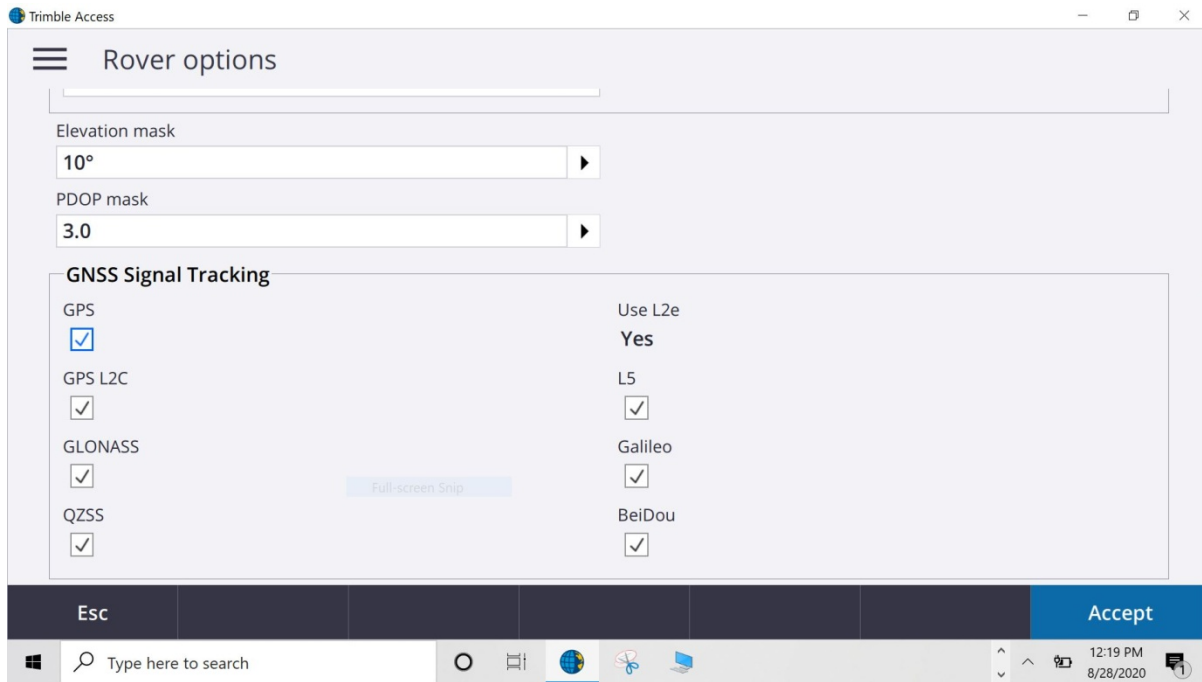
Elevation mask: **10°** ▶

PDOP mask: **6.0** ▶

Esc [] [] [] [] [] [] [] **Accept**

SELECT BROADCAST FORMAT AS PER THE REQUIREMENT

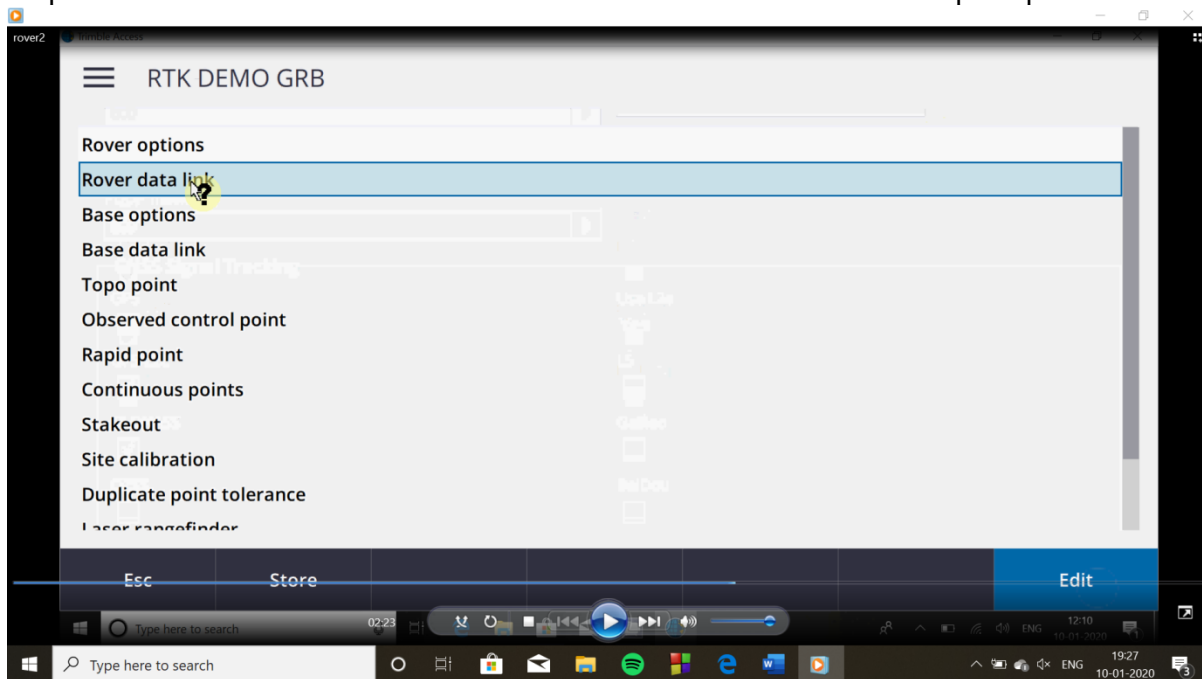
Step 24: Provide Serial number of R8s receiver (Optional).



Step 25: Elevation mask and PDOP mask default values can be altered if required.

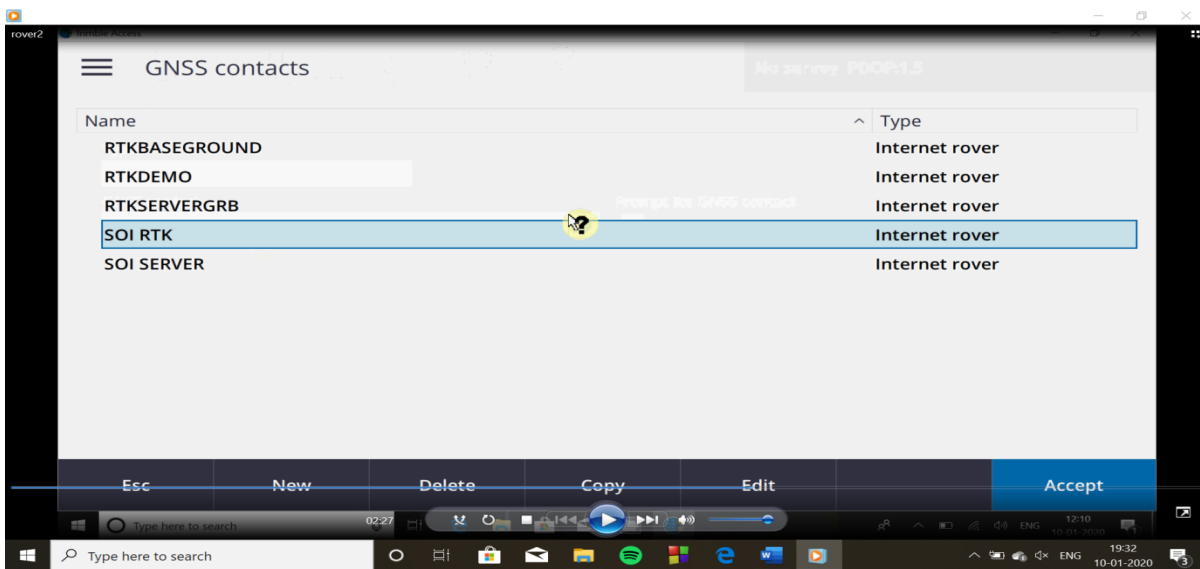
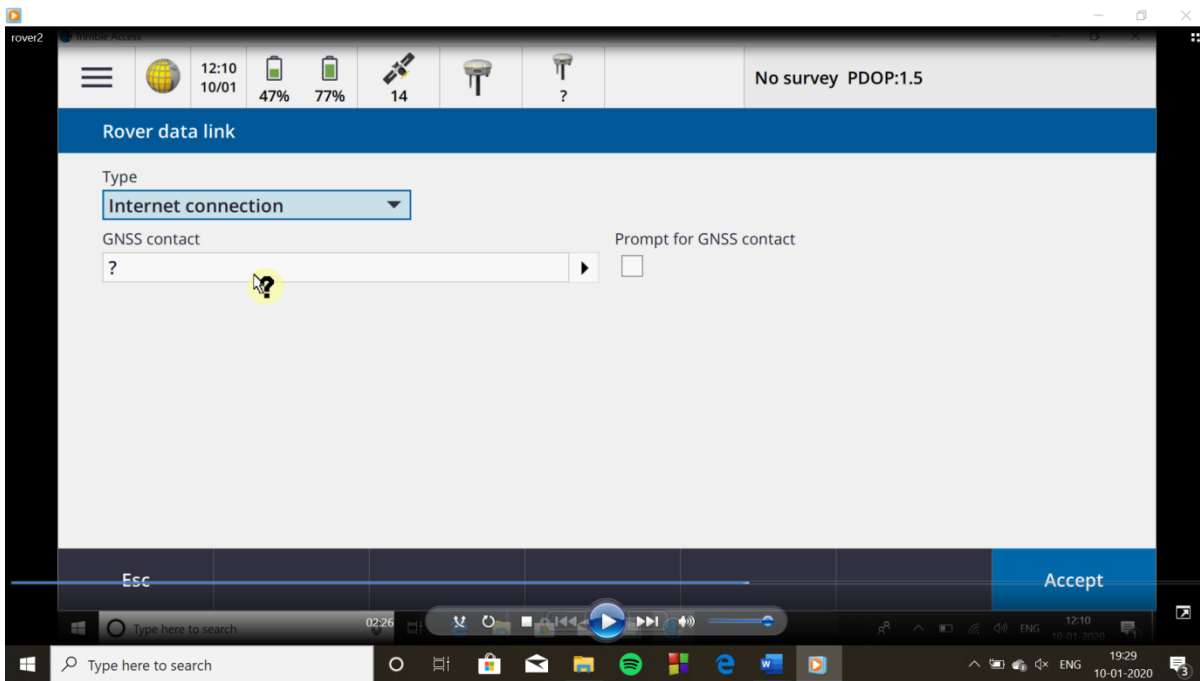
Step 26: GNSS Signal Tracking can be checked for desired constellations. Click Accept tab. Again, we will come back to new window.

Step 27: Click Edit tab for Rover data link. Rover data link window will open up.

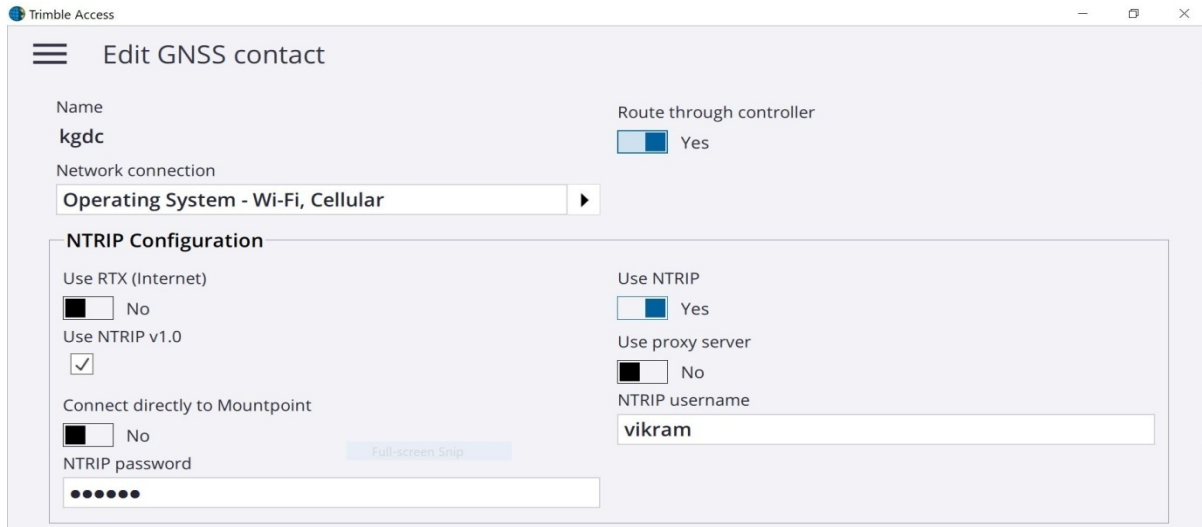


Step 28: Select Type as Internet connection. Click on GNSS contact. A GNSS contact list will come

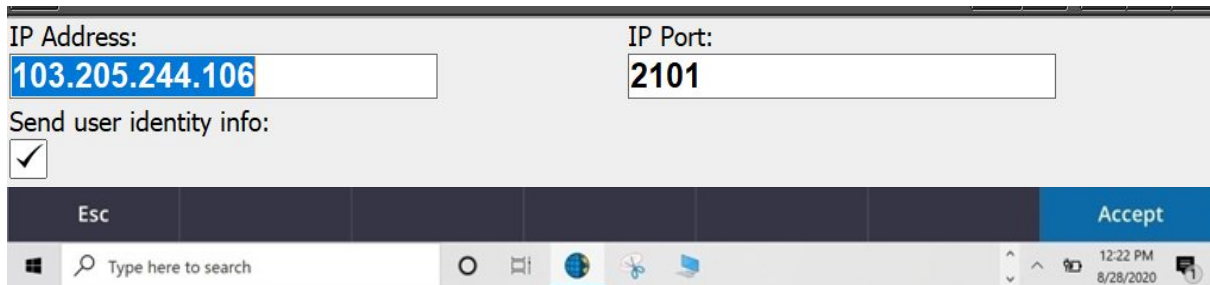
up.



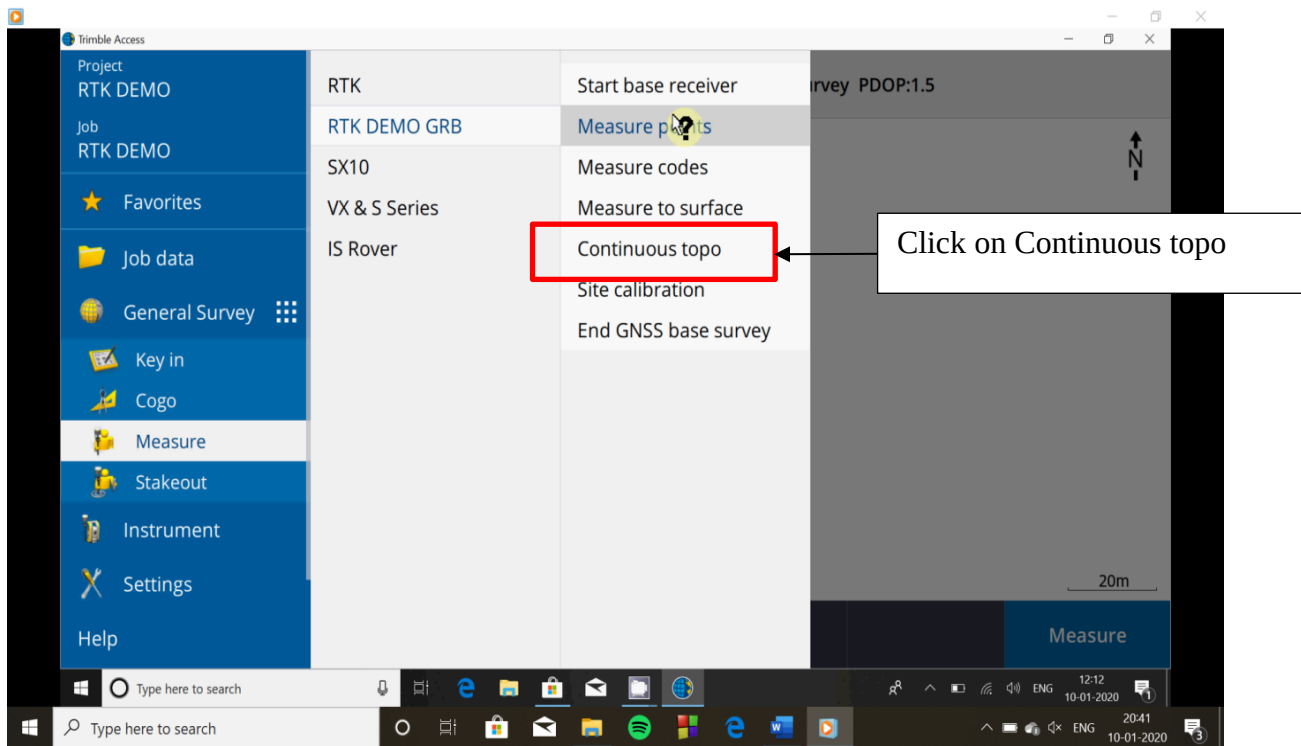
Step 29: Select desired GNSS contact, edit existing or create a new GNSS contact. Accordingly, a new window will open up.



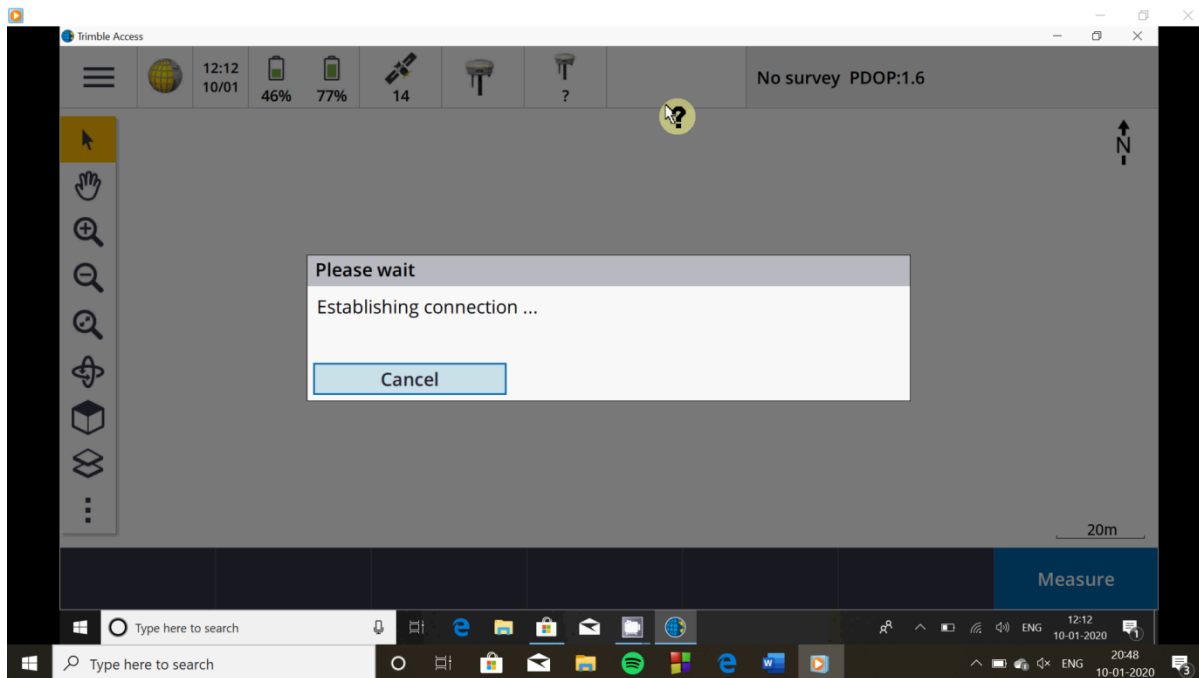
Step 30: Here we will provide the IP address and Port of control Server. And then click Accept and then Store.

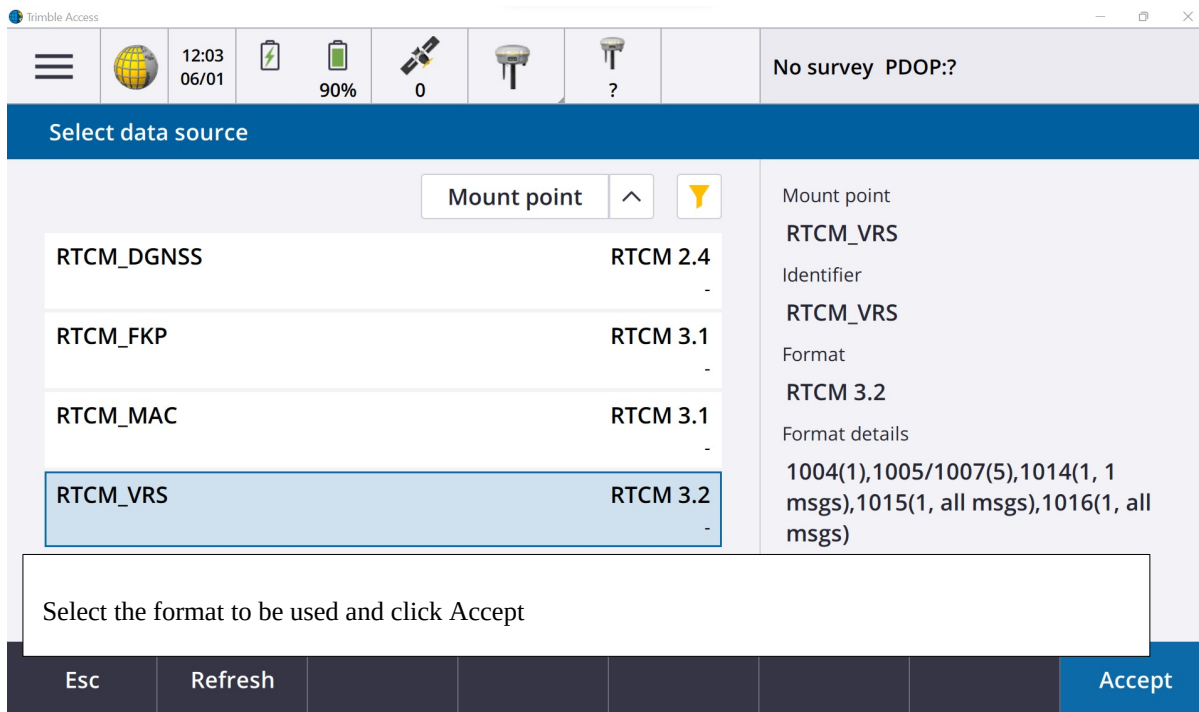


Step 31: Click Measure, select your Survey style and select Continuous topo as shown below



Step 32: Processing bar will appear for establishing connection to the Server.

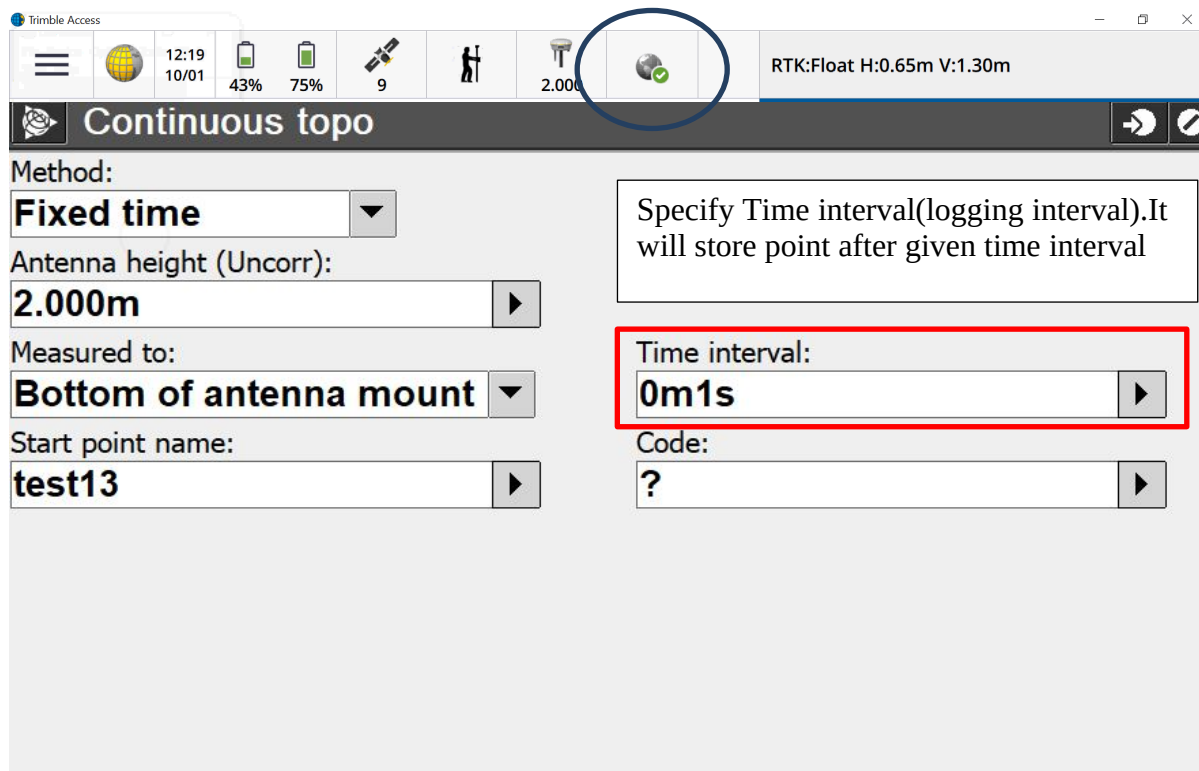




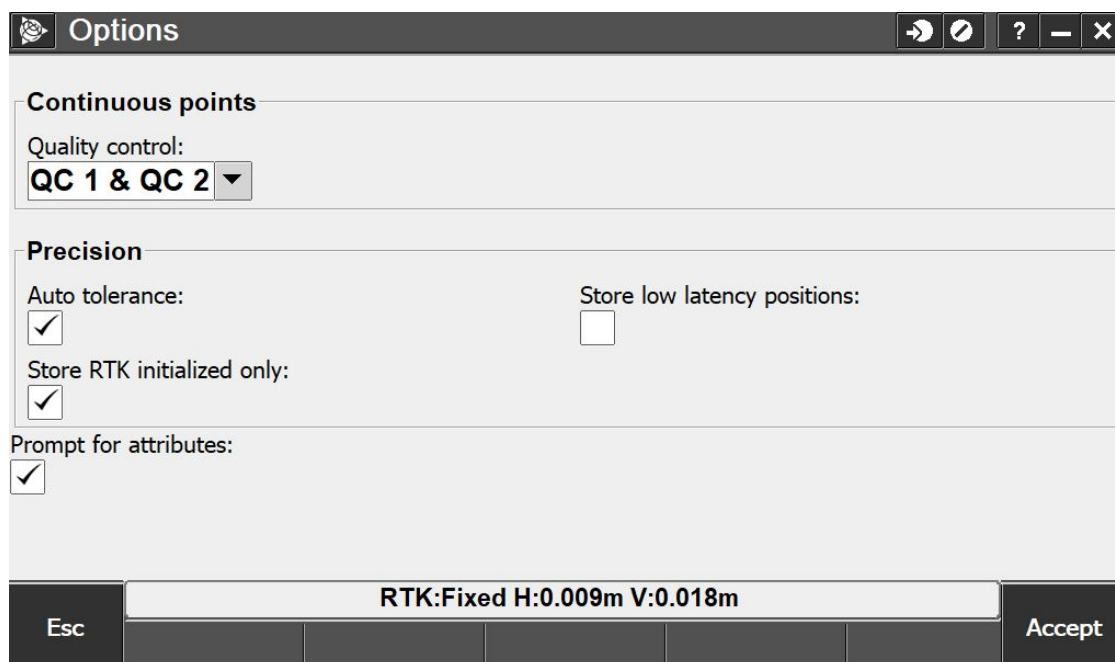
for RTCM_VRS the broadcast format to be selected VRS(RTCM) in step 23
 for RTCM_FKP the broadcast format to be selected FKP(RTCM)in step 23
 for RTCM_MAC the broadcast format to be selected RTCM3NET in step 23

Note: the broadcast format and mount point must correspond to each other (in step 23 and step 32),otherwise the user will not received the NRTK correction

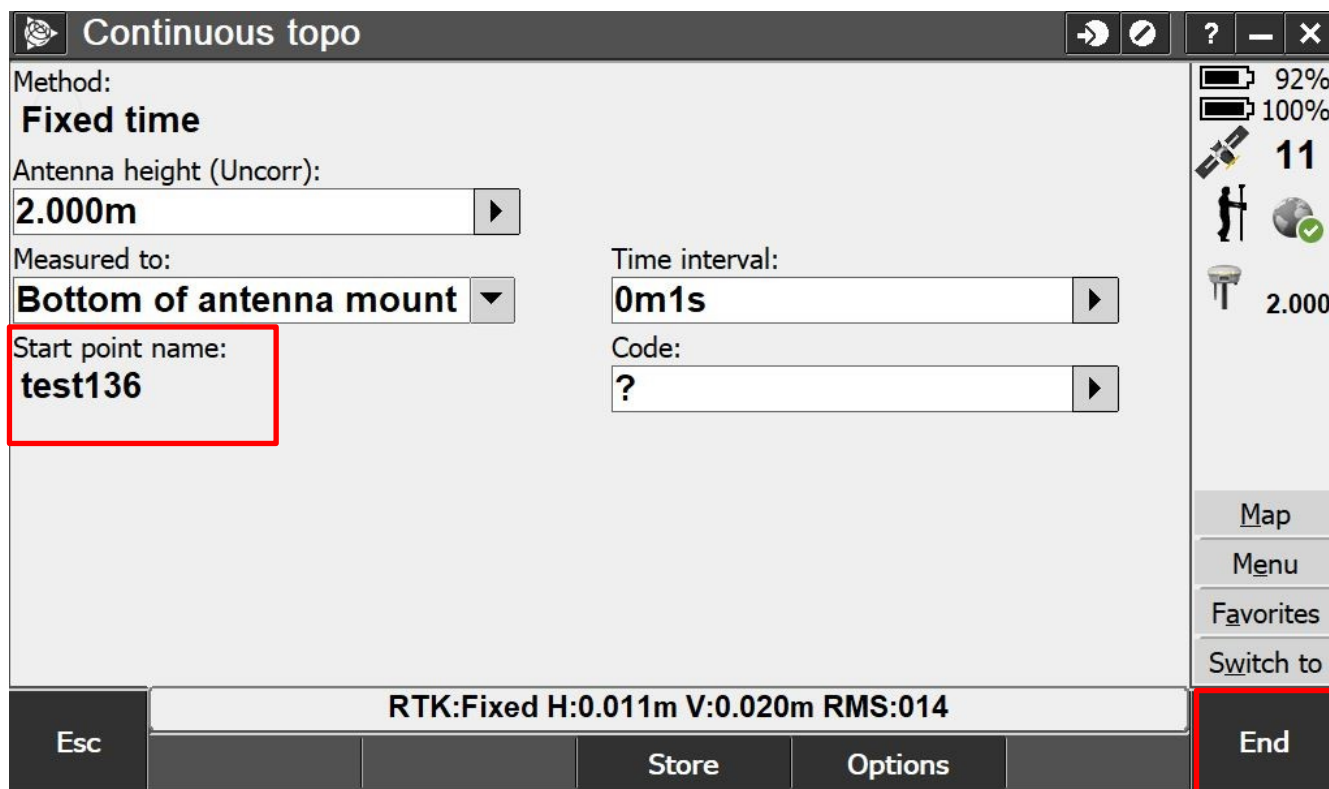
Step 33: A tick will be displayed after successful connection as shown below in circle.



Step 34: click in option and select QC1&QC2 and keep the tolerance as per the requirement ,Auto or user-defined.



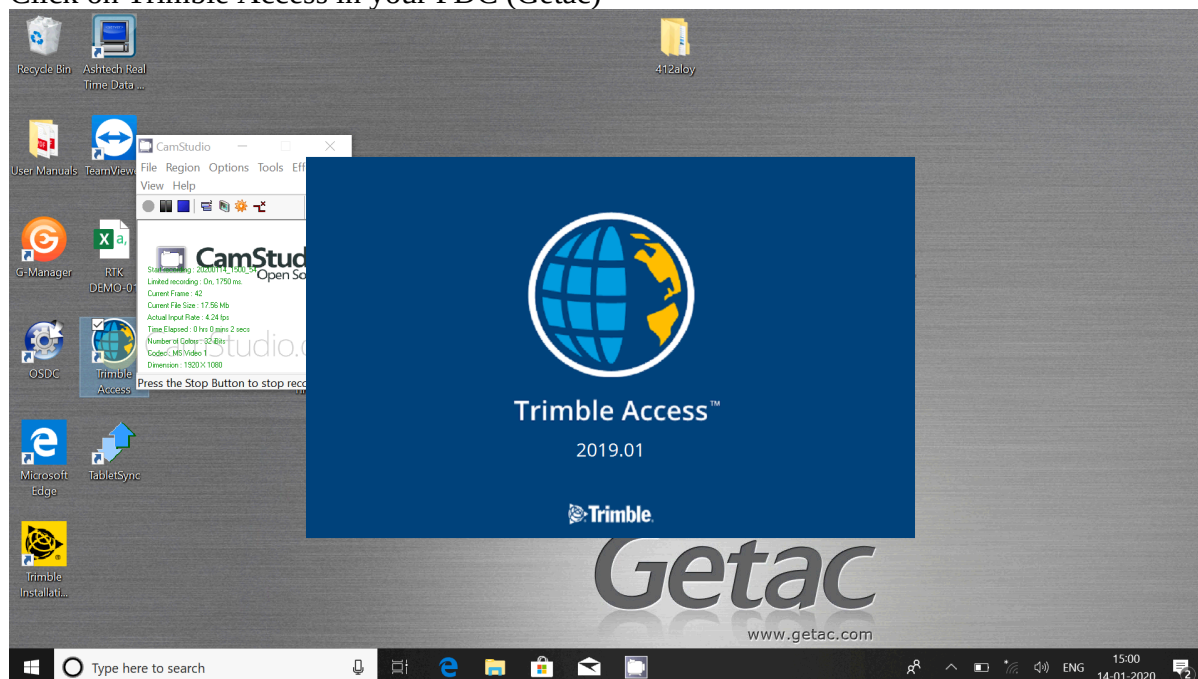
Step 35: Click Accept and then click Start.



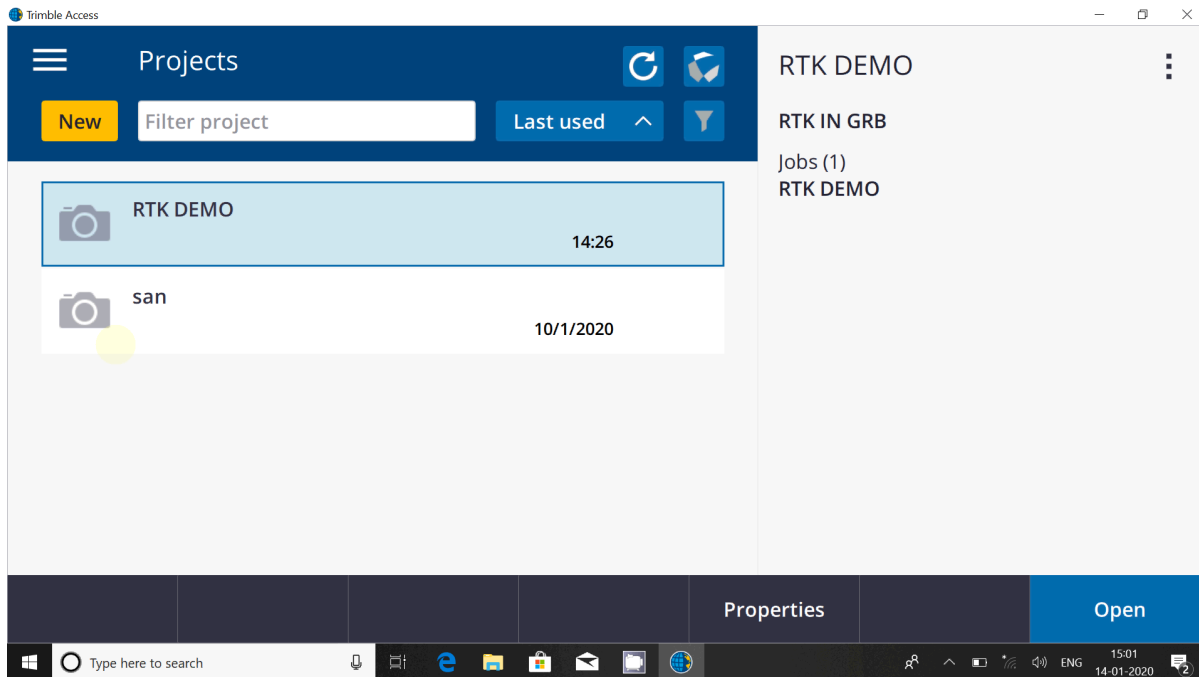
Point id under Start point name will keep increasing (after every 1 second in this case) and once the required number of measurements have been done, click on End.

SOP for Export RTK data file

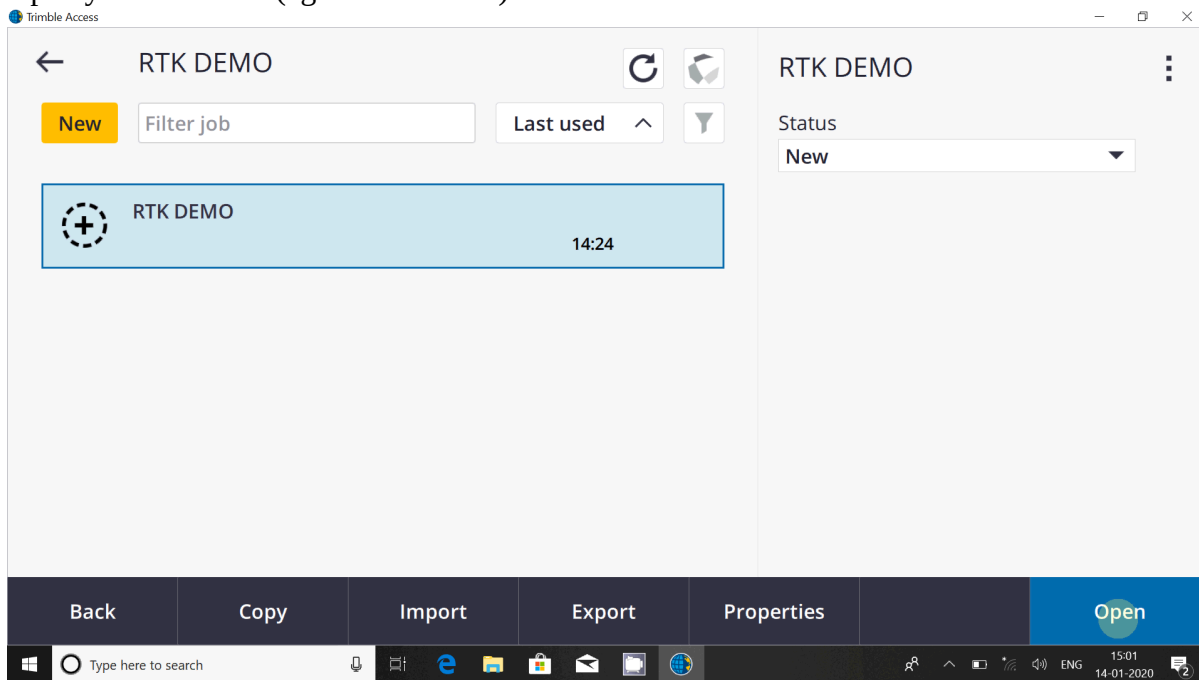
Click on Trimble Access in your FDC (Getac)



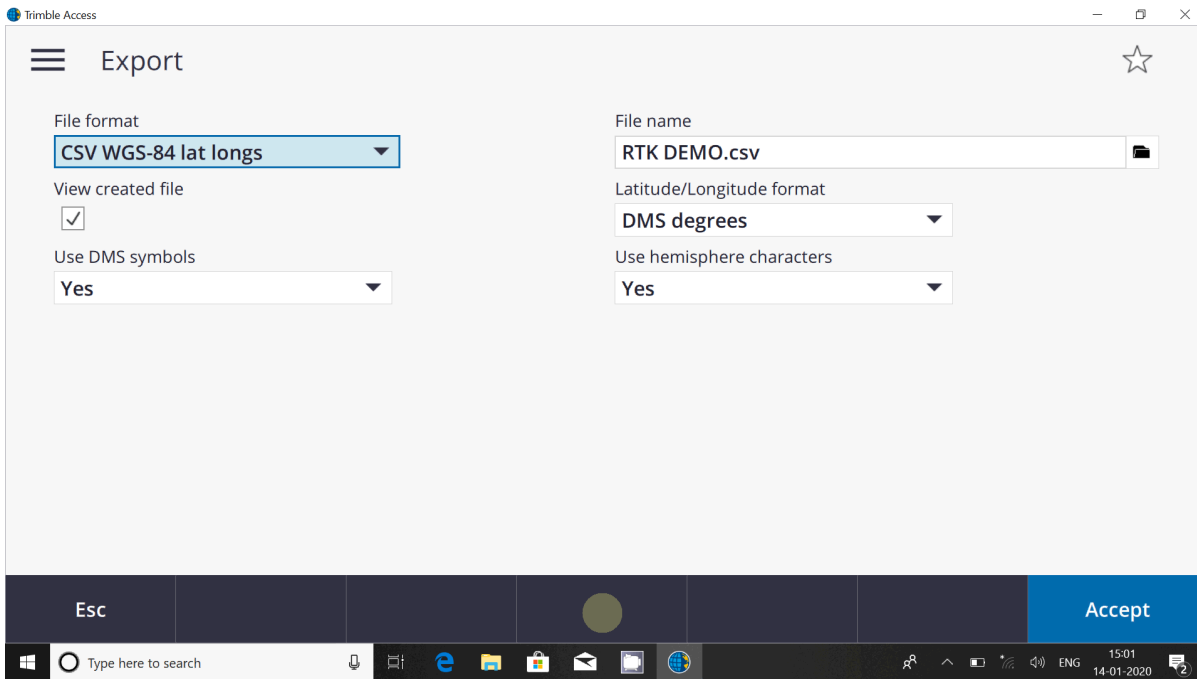
Open your RTK project



Open your RTK Job (eg. RTK DEMO)



Now click on Export tab in your FDC



Export page will open.

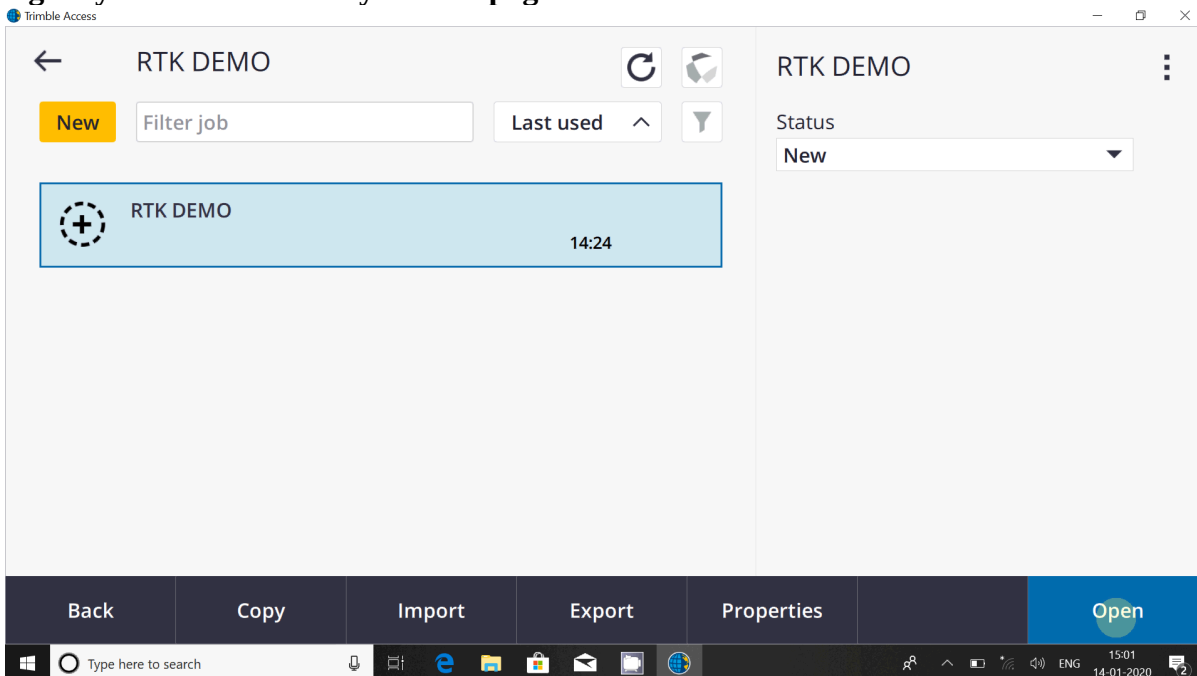
Different File formats are given. Here select file format as “CSV WGS-84 lat longs”

In “File name” select your desired path

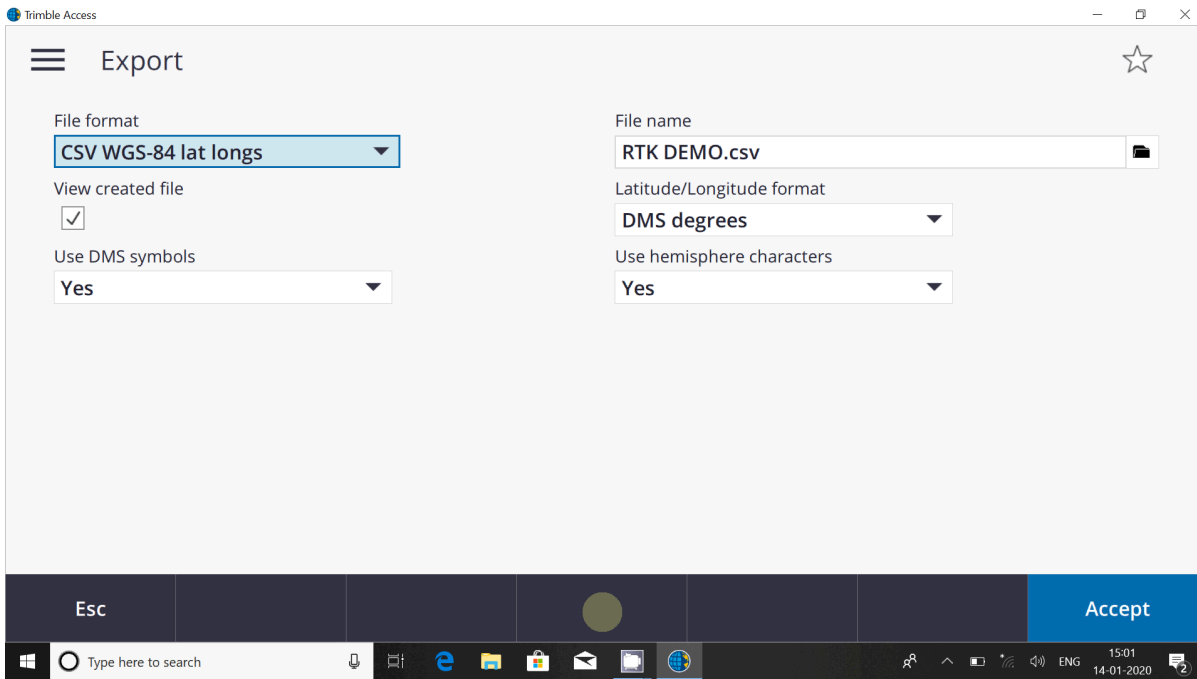
Select “Accept”

Now file has been exported in Lat Long format as path given and file will be opened in MS excel.

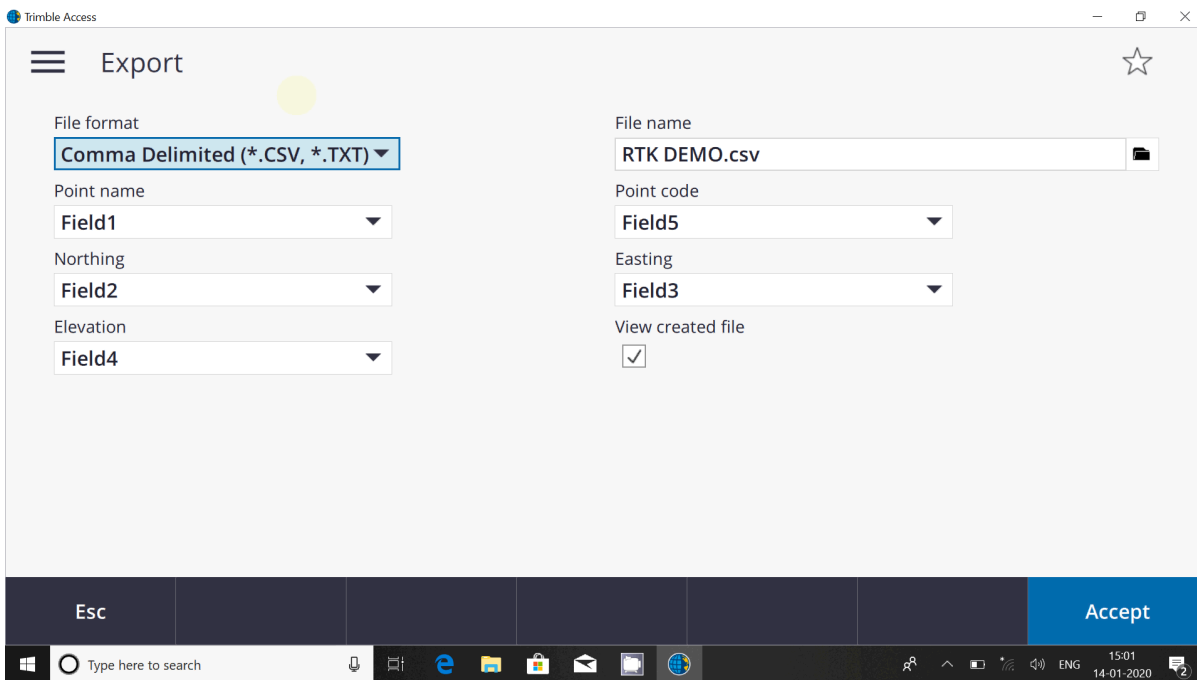
Again you will be back in your Job page



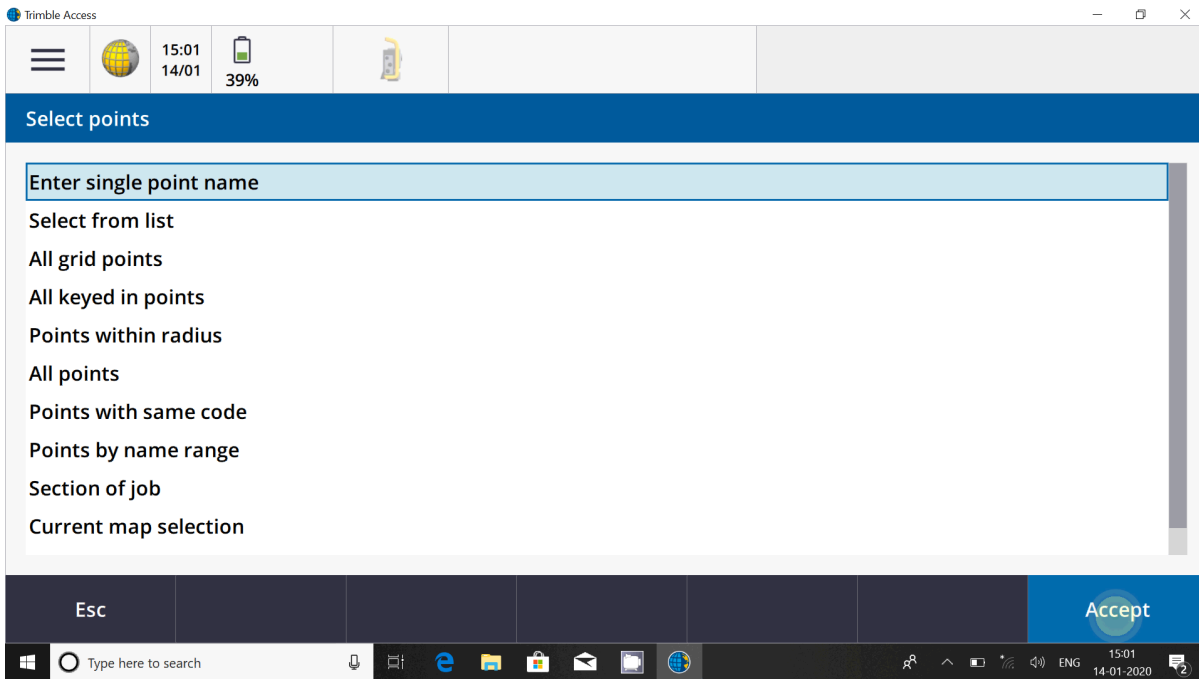
Export page will display again



Now we have to take coordinate in Easting & Northing format. So select “Comma delimited (*.CSV,*.TXT)” in File Format.



In “File name” select your desired path
Select “Accept”



Select "All points" from options and click on Accept.

Now file has been exported in Easting & Northing format as path given and file will be opened in MS excel.