

User Manual

NRTK With SOI CORS

Revision 1.0

1. Creating a New Project

1.1 Open the Software

- 1) Launch the JMT-R application on your TAB.



- 2) The **main interface** will appear on the screen.

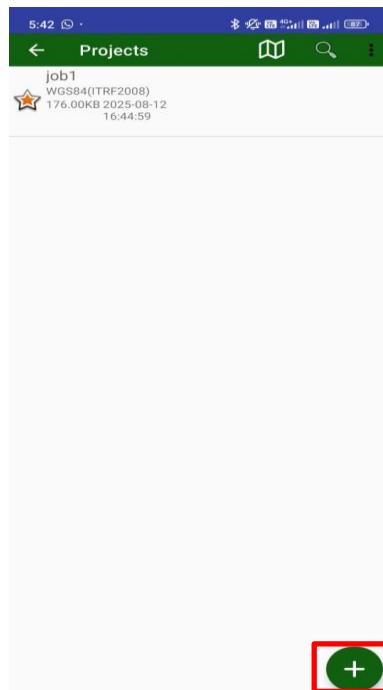


1.2 Start a New Project

- 1) From the top menu, click on **Project**.

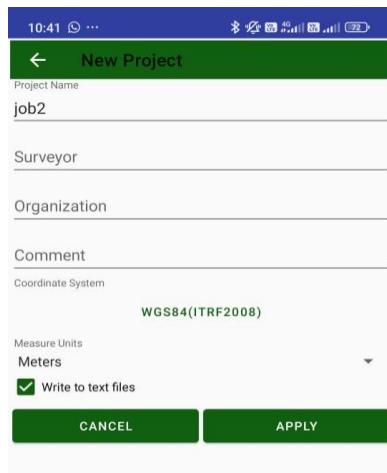


- 2) A drop-down will appear. Select **New Project**.

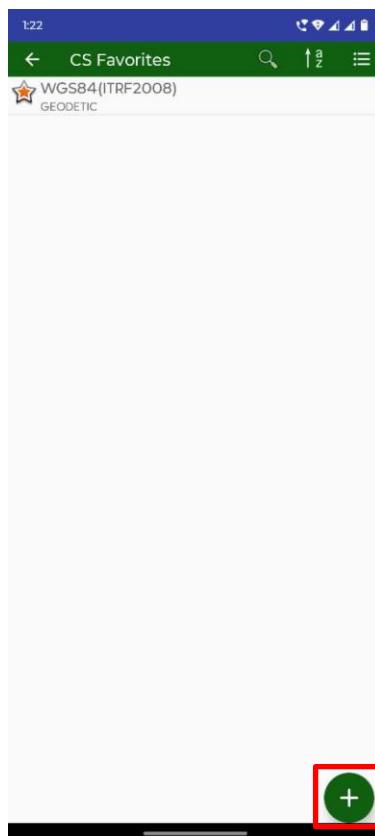


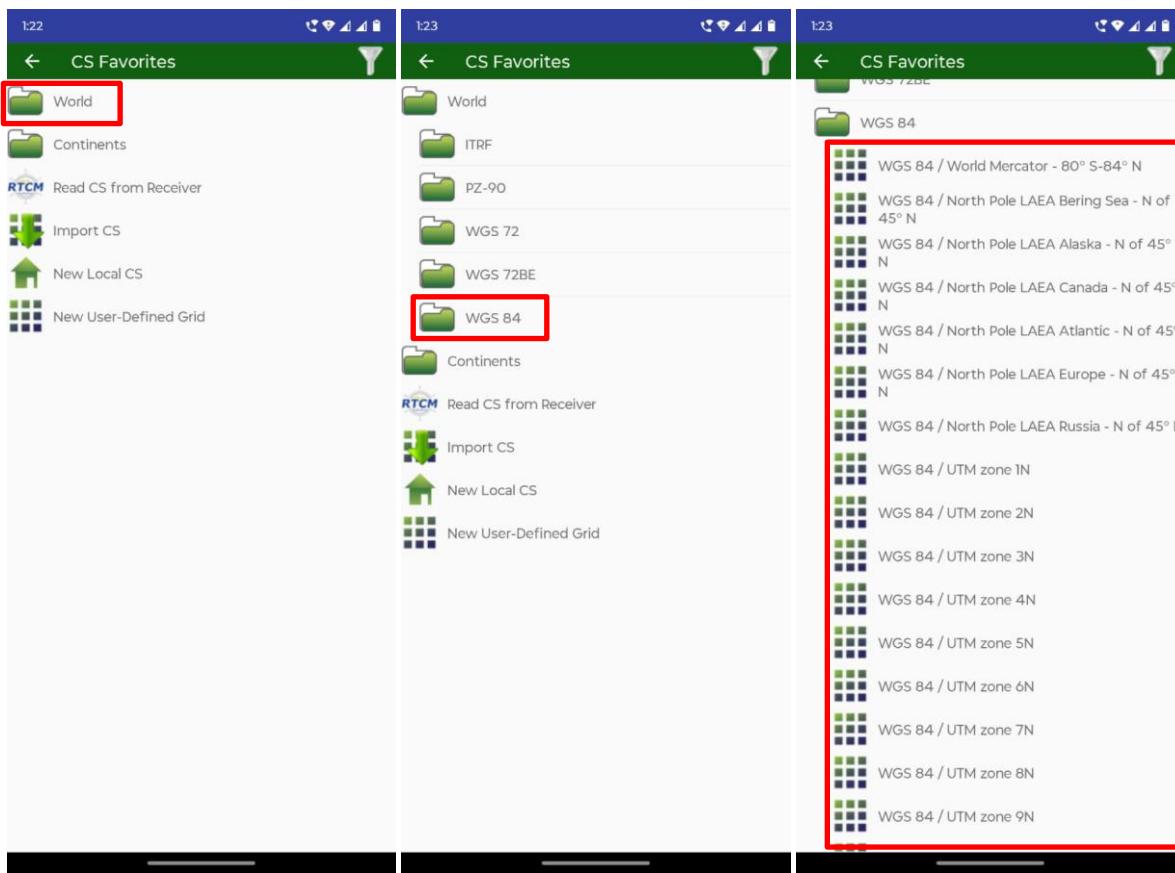
3) Enter Project Information

- i. Type Project Name.
- ii. Surveyor's Name (Optional)
- iii. Organization Name (Optional)
- iv. Project Comments (Optional)



4) Select the Coordinate System.

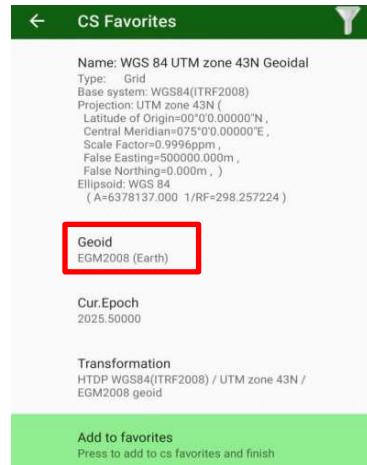


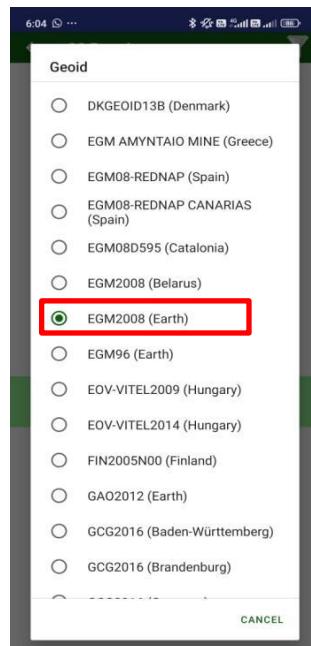


- Click on World.
- Click WGS 84
- Select zone as per your location

5) Set the Geoid Model

- Click on **Geoid**.
- From the available options, select **EGM2008 (Earth)**.





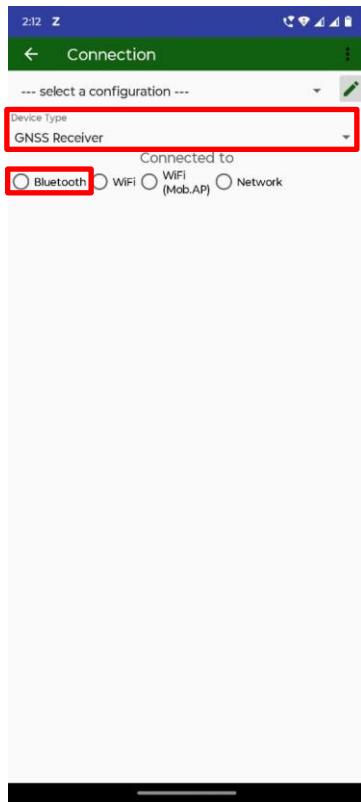
- Click on Add to Favorites to save the coordinate setup for future use.

2. Connecting the GNSS Receiver

2.1 On the main interface, click on connection Tab.



2.2 Select the device type as GNSS Receiver & click on Bluetooth.



2.3 Turn ON the device Bluetooth.

2.4 From the list of available devices, choose your GNSS Receiver Serial Number.



2.5 After the device is connected in GNSS Receiver Bluetooth LED color will become blue.

Note:

1. The software supports multiple receiver models.
2. You can connect different models using the same application.



TRIUMPH-1M



TRIUMPH-1M Plus



TRIUMPH-3



TRIUMPH-2



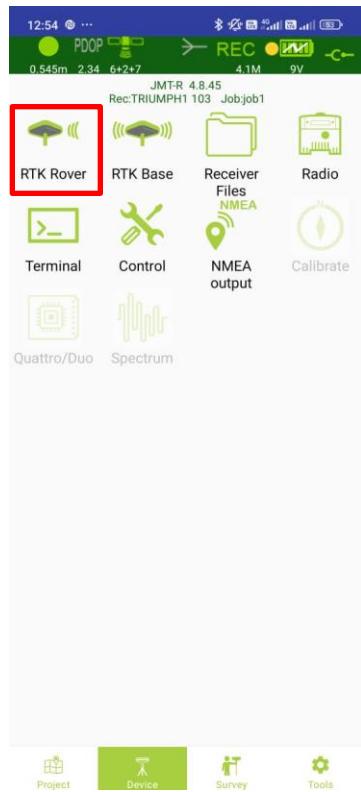
TRIUMPH-3NR



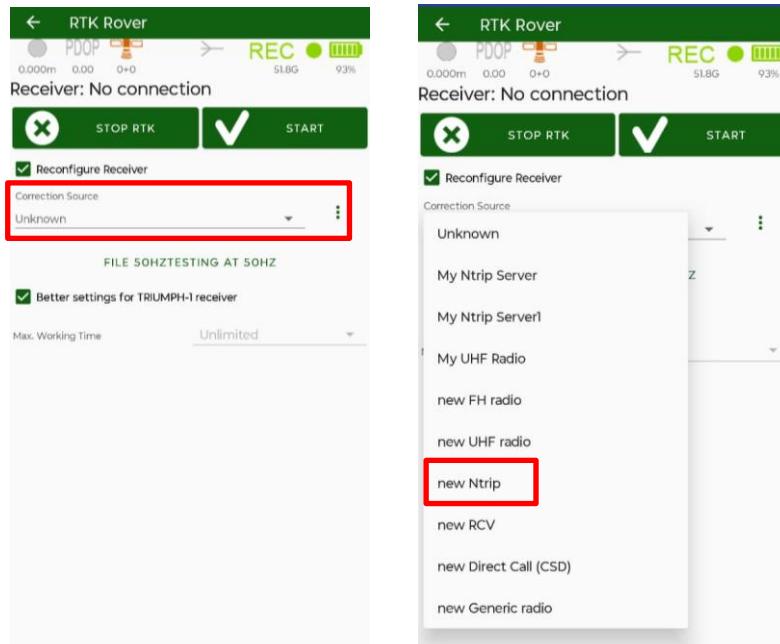
TRIUMPH-LS Plus

3. Rover Setup

3.1 On the main interface, click on RTK Rover option.



3.2 In RTK Rover, select Correction Source and choose New Ntrip.



3.3 Fill in the following details carefully (these are provided by your CORS / correction service provider):

The screenshot shows the 'Configure Ntrip' dialog box. In the 'Mount Point' field, 'RTCM_VRS' is selected. To its right, a 'SOURCE TABLE' button is highlighted with a red box. Below this, there is a table with one row:

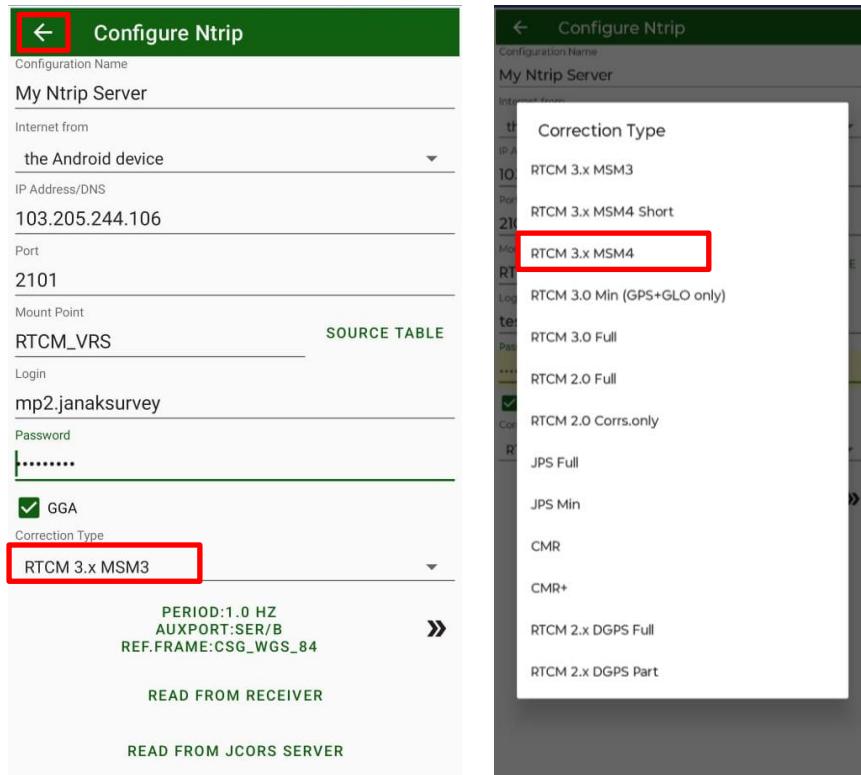
| | | | | | |
|------------|------------|----------|----------------------------------|---|----------|
| RTCM_DGNSS | RTCM_DGNSS | RTCM 2.3 | 1004(1),1005/1007(5),P BS(10) | 2 | GI +C |
|------------|------------|----------|----------------------------------|---|----------|

- Configuration Name – My Ntrip Server (Any Name)
- Internet from – the Android device
- IP Address – server IP of your region's SOI CORS network
- Port Number – communication port
- Username & Password – credentials for accessing the correction service
- Click on source table and select RTCM_VRS.

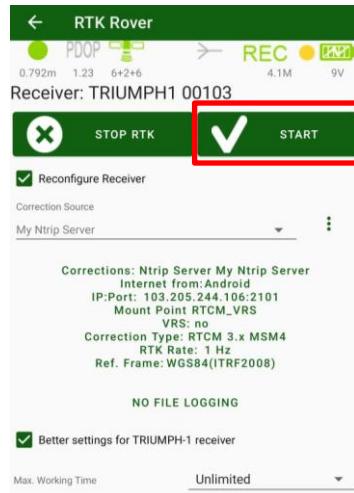
The screenshot shows the 'Configure Ntrip' dialog box on the left and the 'Source Table' dialog box on the right. The 'Configure Ntrip' dialog has 'RTCM_VRS' selected in the 'Mount Point' field, which is highlighted with a red box. The 'Source Table' dialog shows a list of tables, with 'RTCM_VRS' highlighted with a red box. The table data is as follows:

| Mount Point | Source | Format | Messages | Carrier | Nav |
|-----------------|-----------------|-----------------|--|----------|------------------|
| RTCM_DGNSS | RTCM_DGNSS | RTCM 2.3 | 1004(1),1005/1007(5),P BS(10) | 2 | GI +C |
| RTCM_FKP | RTCM_FKP | RTCM SAPOS | 1(1),3(10),20(1),21(1) | 2 | GI |
| RTCM_MAC | RTCM_MAC | RTCM3Net | Obs(1),Info(10),PrsInfo(1 1) | 2 | GI |
| RTCM_VRS | RTCM_VRS | RTCM 3.4 | 1004(1),1005/1007(5),1 014(1, 1 msgs),1015(1, all msgs),1016(1, all msgs) | 2 | GI +C |

- In correction types select - RTCM 3.x MSM4 and click back Button



3.4 Click on Start - Its showing RTK rover started Ok.



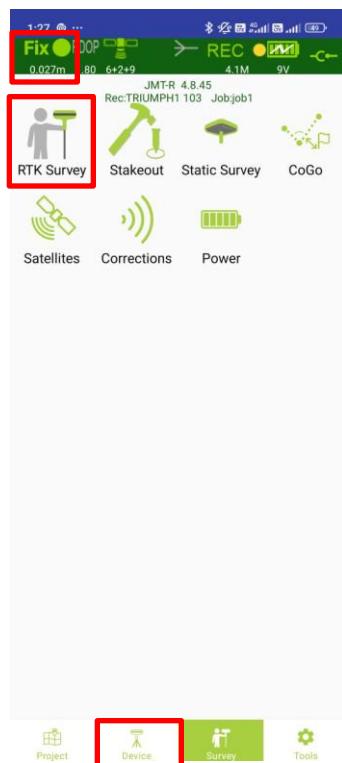
Note:

1. For Region-1, IP- 103.205.244.106 and PORT- 2101
2. For Region-2, IP- 103.206.29.4 and PORT- 2105

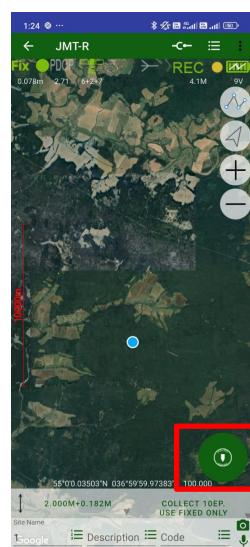
4. RTK Survey

4.1 Open Survey Option

- From the bottom menu, select **Survey**.
- At the top corner, tap **RTK Survey**.
- The status will show FIX once a stable RTK solution is achieved.



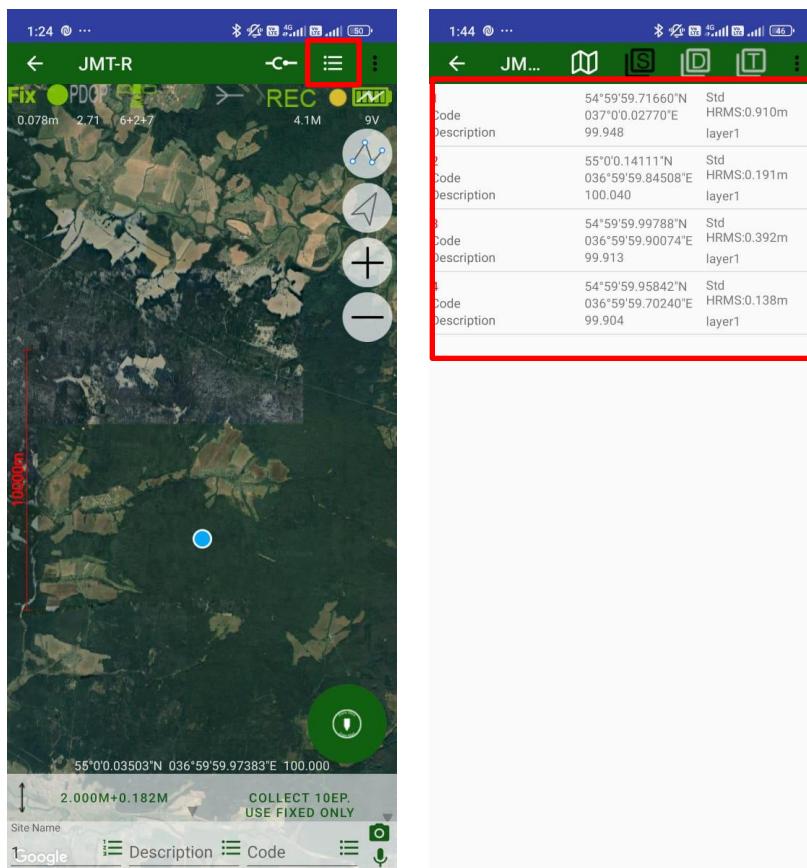
4.2 Collecting Survey Points



- To record a point, tap the Green Circle Symbol (Measure Button).
- Each tap will save one observation point.

4.3 Viewing Collected Points.

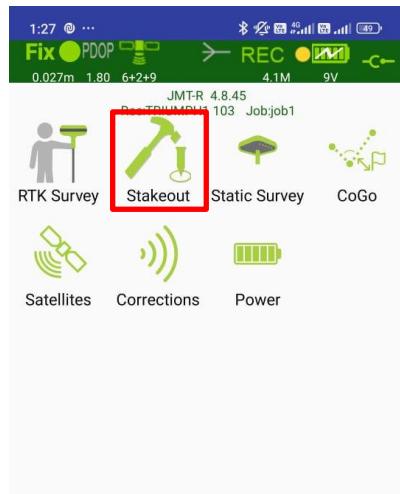
- Open the **Menu** (top bar).
- Your list of collected points will be displayed here.



5. Stakeout

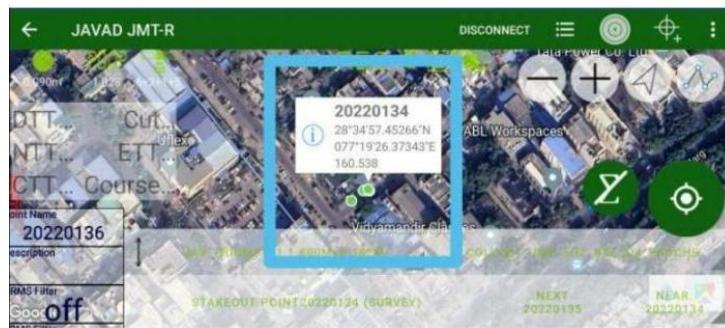
5.1 Open Stakeout

- From the Main Menu, select Stakeout.
- The Stakeout Map View will open.



5.2 Select Points for Stakeout

- Choose the point(s) you want to navigate to.
- Points can be selected from:
 - The map screen (tap the point).
 - The point database list.



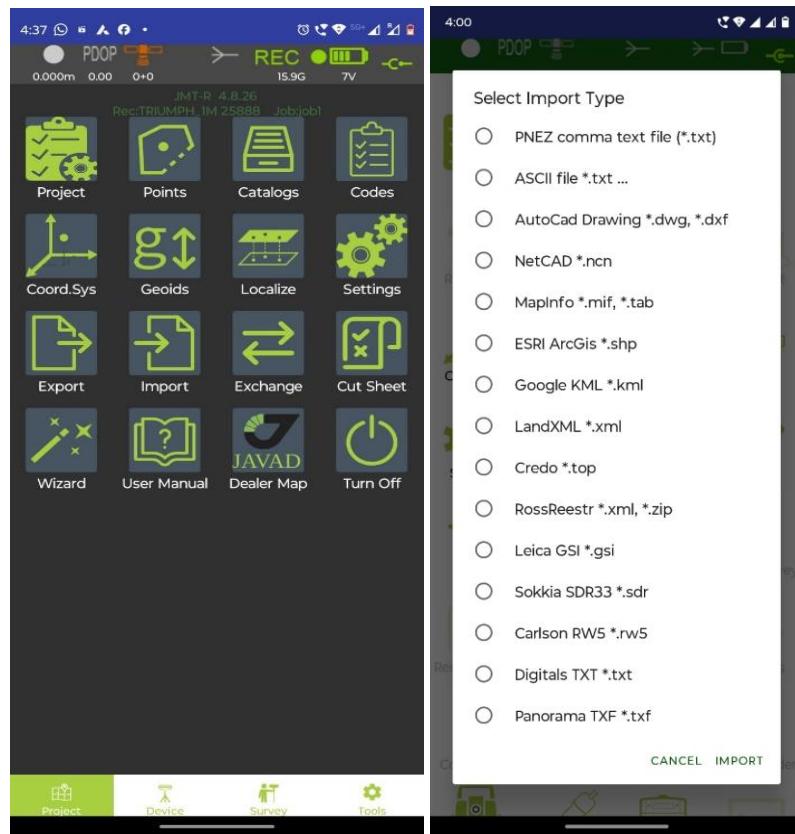
5.3 Start Stakeout Navigation

- Select points from the Screen
- Click on stake point for staking and navigate point.

6. Import and Export

6.1 Importing Data

Import is used when you want to bring external files (points, coordinates, jobs, etc.) into your project.

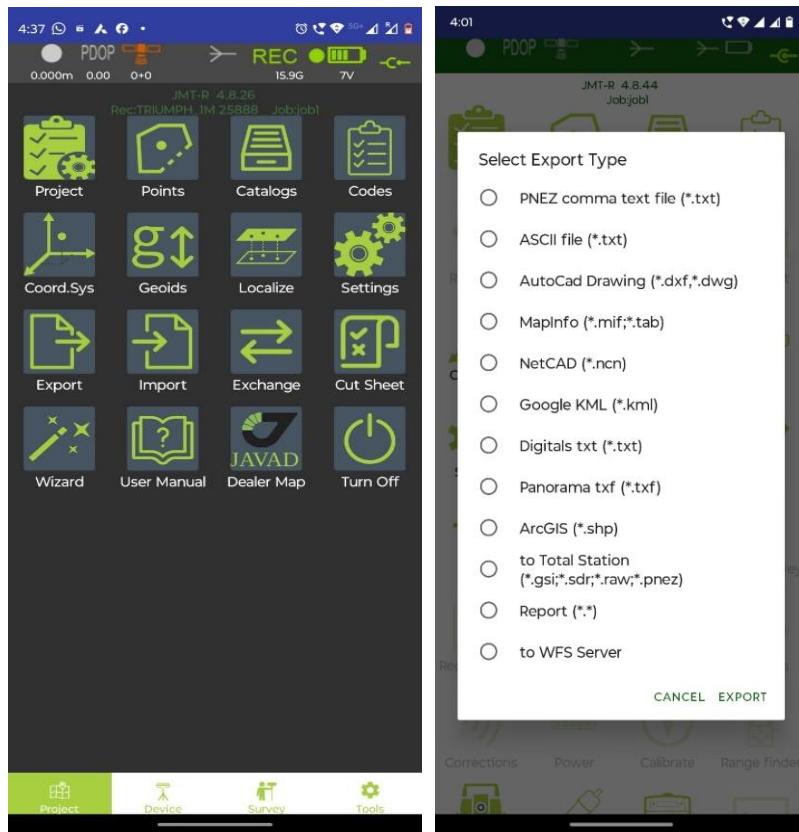


- From the Main Menu, select Import.
- Select the format of the file you want to import.
- A file browser will open.
- Navigate to the folder where your file is stored.
- Select the file.
- After selection, the data will be automatically imported into your project.

6.2 Exporting Data

Export is used to save your collected survey data into standard file formats for reporting or further processing.

- From the Main Menu, select Export.
- Choose File Format
- Select the format required.
- Tap Export.
- Choose the folder/path where you want the file to be saved.
- The selected data (points, coordinates, job results) will be exported and saved in the chosen format.



7. Customer Support:

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