KOREC TSC7 Field Controller User Guide

Contents

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Product Information

Specifications:

- Model: VRS Survey Guide
- Functionality: Grouping Trimble Access jobs, storing control points and setting out data, accessing VRSNow data server
- Features: High precision survey values, internet connection through modem, calibration settings

Product Usage Instructions

Creating and Configuring a Job:

1. Open an existing Job or create a new Job.
2. If creating a new job, enter the Job name, select Template as OSTN15, and tap Enter.
3. Press Accept to complete the Job creation.

Setting up VRS Survey Style:

1. Tap Menu > Measure > VRS Survey Style.
2. Select a style from the drop-down list and choose Measure Points.

Connecting to VRSNow Data Server:

1. Ensure the Controller’s modem is connected to the internet.
2. Tap Measure and allow initialization for high precision values.

Calibrating Tilt Sensor (If Required):

If using R10 or R12 with tilt sensor calibration warning, tap on Calibrate and follow the instructions provided in the

video.

Navigating and Using Map Screen:

1. Use finger gestures or buttons to navigate the map screen.
2. Zoom in/out using plus/minus buttons.
3. Access Layer Manager for more options.

Setting Out Points and Lines:

Tap on the point or line on the map, press Stakeout, and follow on-screen directions to locate the position.

Frequently Asked Questions

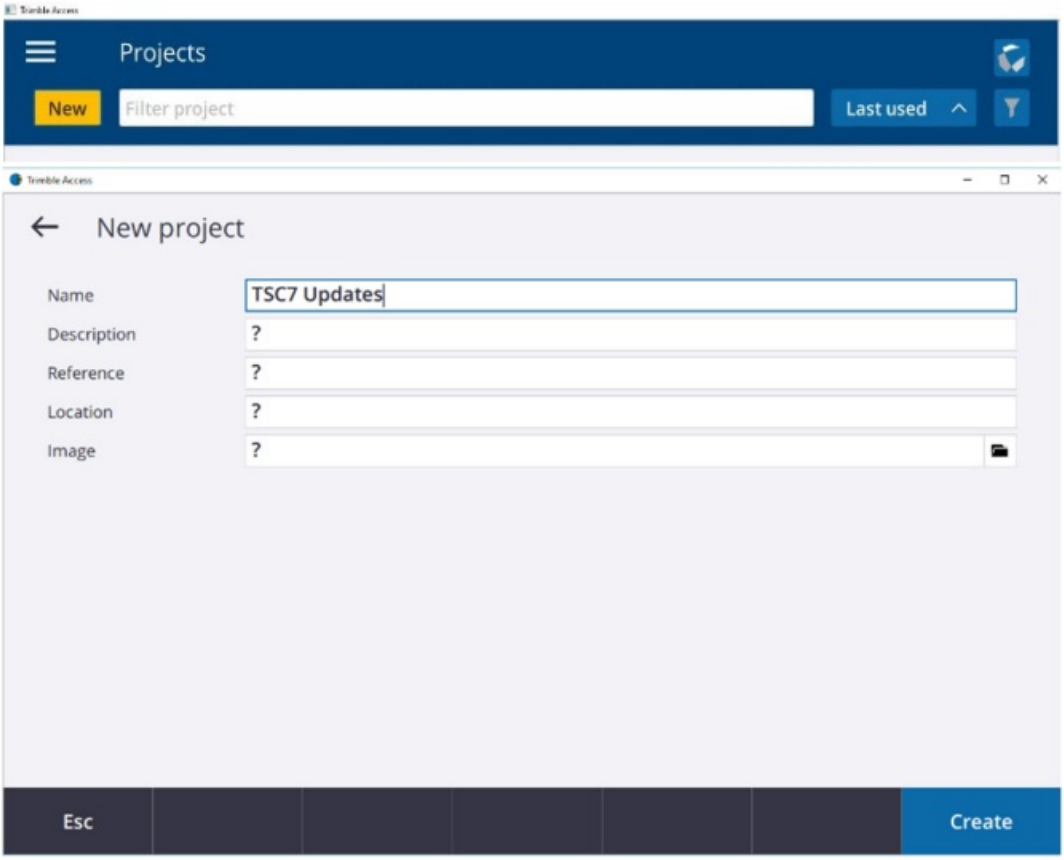
- **Q: How many codes are available on a Group screen by default?**
  - **A:** 9 codes are available by default, but it is possible to increase this number and set up multiple groups of codes.
- **Q: Can points be completely deleted in Review Job?**
  - **A:** Points aren’t deleted completely in Review Job, they are just flagged as deleted.

VRS Survey Guide

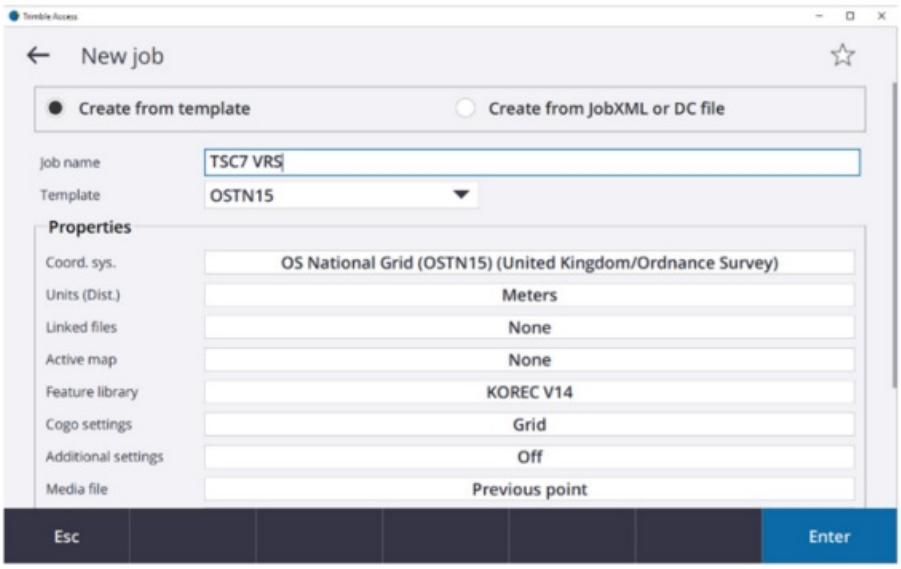
These notes refer to the TSC7, TSC5 controllers but apply equally to any touchscreen tablet running Trimble Access. The example Job settings shown are for the Ordnance Survey National Grid OSTN15 system and the Controller is configured for VRS survey

Starting a VRS survey

Turn on the GNSS Receiver and the Controller then start Trimble Access. Access will display the Projects screen. Tap the yellow “New” button on the top left to create a new Project or you can open an existing Project. If creating a new Project, name it appropriately. All other options can be left blank. Tap the blue “Create” button in the lower right-hand corner of the screen.



A Project is a folder for grouping Trimble Access jobs and the files used by those jobs in one place, including control points and setting out data. Open an existing Job or create a new Job. If you create a new job the next screen requests the name of the Job, which must be entered. Change the Template to OSTN15 if not already selected, and then tap “Enter” in the lower right-hand corner of the screen.

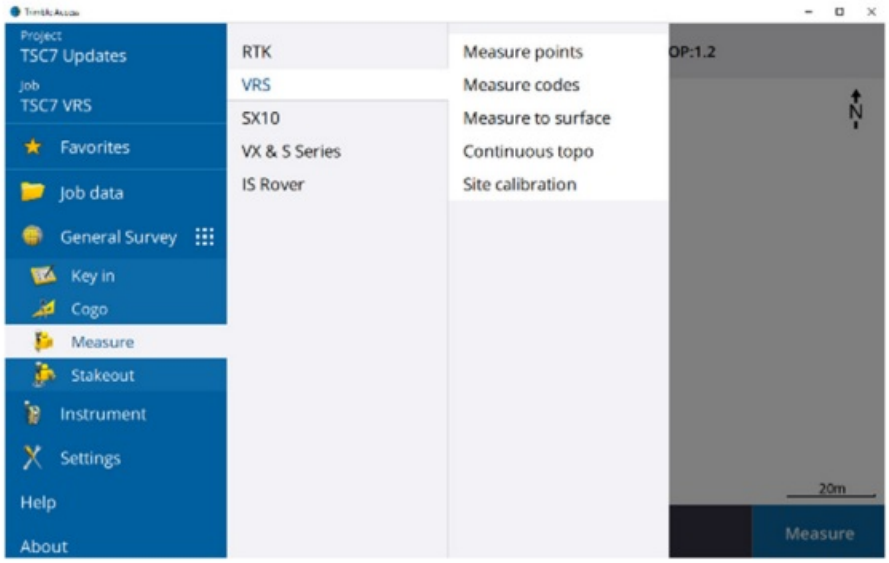


Press “Accept” to complete the Job creation.

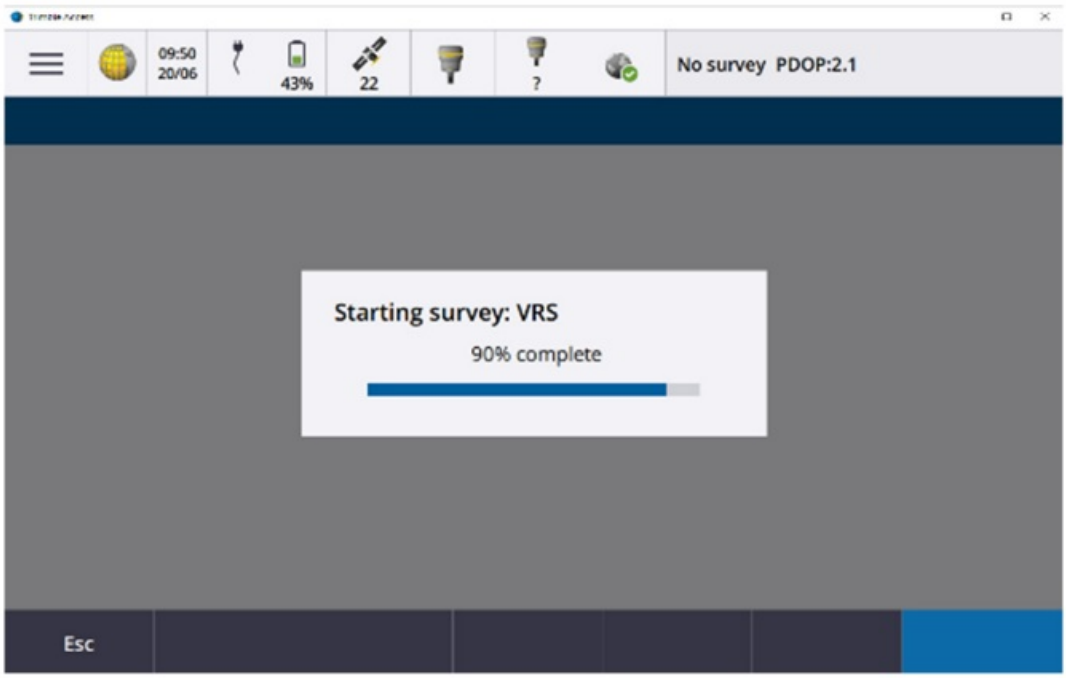
A Job contains the raw survey and the configuration settings including coordinate system, calibration, and measurement unit settings. Any media images captured during the survey are stored in separate files and linked to the Job.

Tap the Menu button in the top left-hand corner of the screen  .

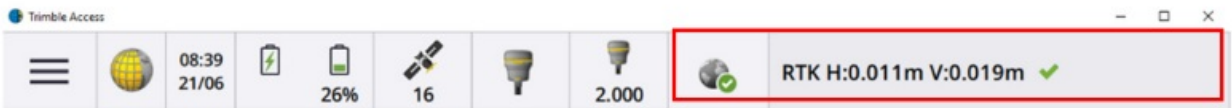
Tap the Measure button and select a VRS Survey Style from the drop-down list presented, then select Measure Points.



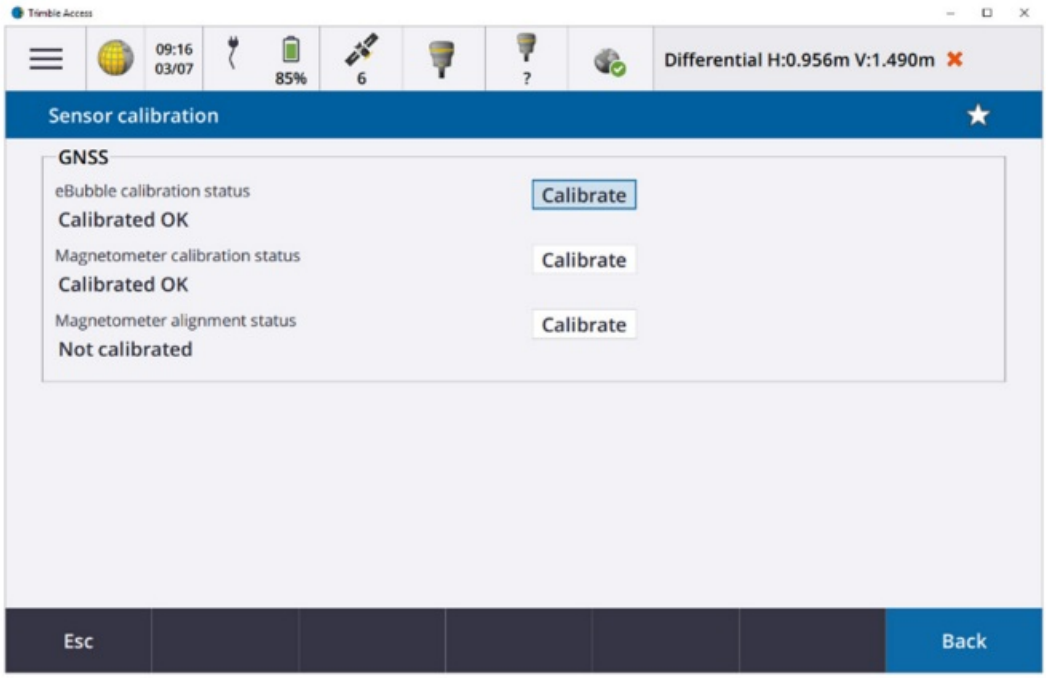
Access will use the Internet connection through the modem in the Controller to connect to the VRSNow data server.



After a short period, initialisation will be gained giving you high precision values. Try to have the Receiver in an open area clear of obstructions whilst initialisation is taking place. The status bar at the top right corner of the Access screen will show the precision status with a green tick and the Horizontal and Vertical precisions.



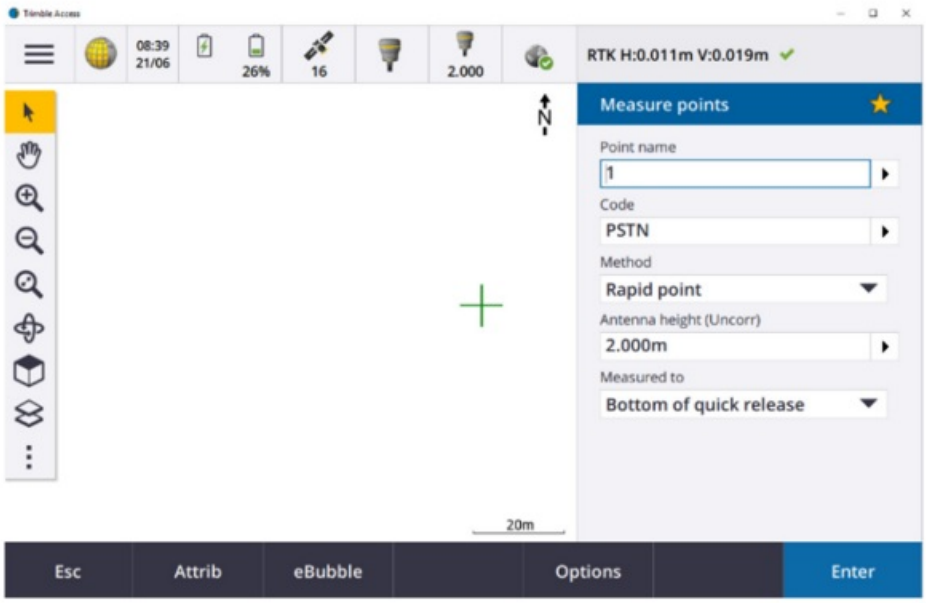
If using an R10 or R12 and the tilt sensor calibration warning appears, then tap on “Calibrate” and follow the instructions. This video provides a good overview of the calibration steps: **https://youtu.be/p77pbcDCD3w**



Now you are ready to measure points, enter a Point name, Code, and select a measurement Method.

- Rapid Point – quickest, 1 measurement – soft detail
- Topo Point – mean of 3 measurements – hard detail
- Observed Control Point – measures & means 180 epochs – control obs
- Calibration Point – measures & means 180 epochs – site Cal measurements

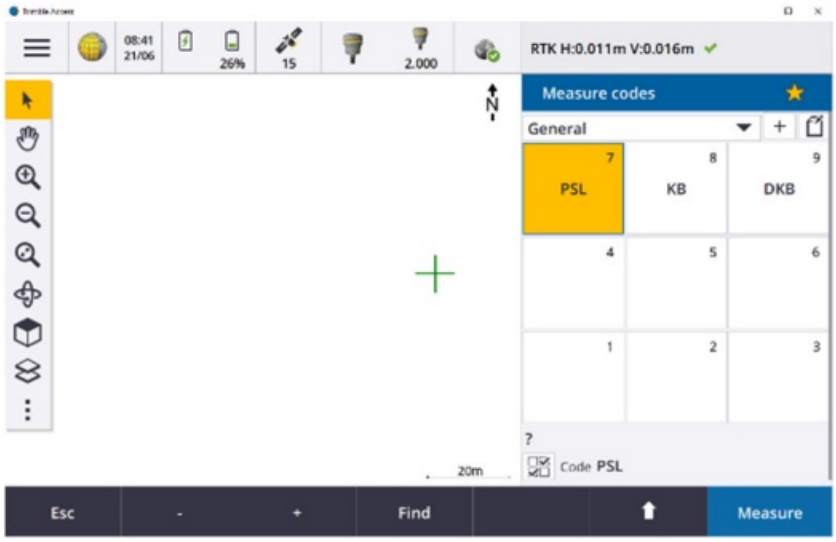
Enter the Antenna height and Measured to parameters. Bottom of quick release is the correct setting for an R10/R12/R12i.



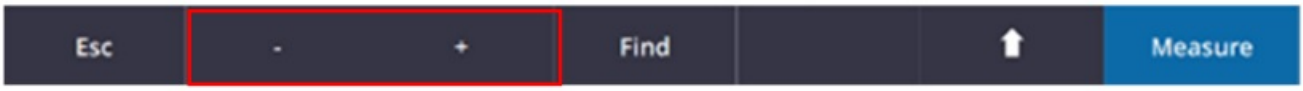
Points are measured by tapping the “Measure” button or pressing any of the Enter buttons on the Controller keypad. If Trimble Access isn’t configured to automatically store measurements, then you will have to tap “Store” to save each point.

Measure Codes

Measure codes is an alternative method of measuring points. To access this screen, tap the Menu button in the top left corner of the screen and tap the Measure button then select Measure codes. The first time this screen is used you will need to press the Add group button to create a screen of blank buttons. To assign a code to a button, tap and hold on it until it stays dark, and a pinging sound is heard. Then release the stylus from the screen and enter the code required. In the example below three codes have been assigned to three buttons.



To measure a coded point, tap the button required. It is also possible to highlight a button by using the spider key on the TSC5/7 keypad and pressing the Enter button to take the measurement. String numbers can be attached to codes by highlighting the button required and using the – and + keys at the base of the screen.



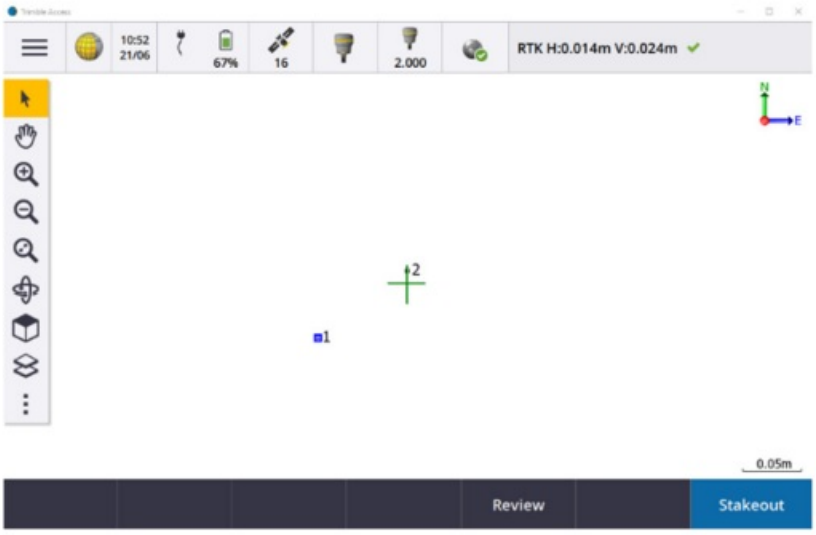
9 codes are available on any one Group screen by default, although it is possible to increase the number of buttons per group and have multiple groups of codes set up. The type of points measured is the one that is defined in the Measure points screen (Topo point, Rapid point, etc.).
Pressing Esc in the lower left corner of the screen will close the current screen and reveal the previous screen. After pressing Esc, a few times, you will always return to the starting Map screen.

Map Functions – Quick Guide

The map screen is displayed on the left-hand side of the screen. It is navigated using smart phone style finger gestures, the buttons listed below can also be used to navigate and for further options.

- Select – Tap the pointer button and use to select features in the map.
- Pan – Tap the hand button, then drag the map area to where you want to reposition the map.
- Zoom in/out – Tap the plus/minus buttons to zoom in or out one zoom level at a time.
- Zoom extents – Tap the button to zoom to the map extents.
- Orbit – Tap the button to orbit the data around an axis.
- Predefined view – Tap the button and then select Plan, Top, Front, Back, Left, Right or Iso.
- Layer Manager – Tap button to add files from the project folder to the map as layers or to change which features are visible and selectable in the map.

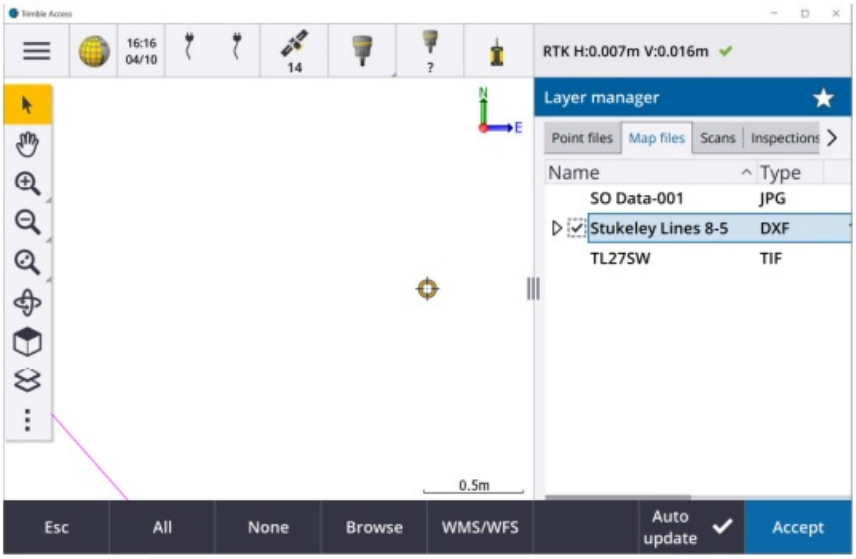
More – Tap button and then select the appropriate menu item to change the information that is shown in the map. Select from Settings, Scans, Filter, Pan to point and Pan to here. It is possible to select a point or multiple points on the map by tapping on them. To deselect points, then tap & hold in a clear part of the map screen and choose Clear from the menu that appears, or double tap the screen. Data selected on the Map screen can be reviewed, used within a COGO function, or set out (Stakeout).



Layer Manager – Linking Data to a Job

Data can be linked to the Map for setting out or as a background reference. It is a good idea to copy the data to the Controller (Project folder is a good location) before going to the field.

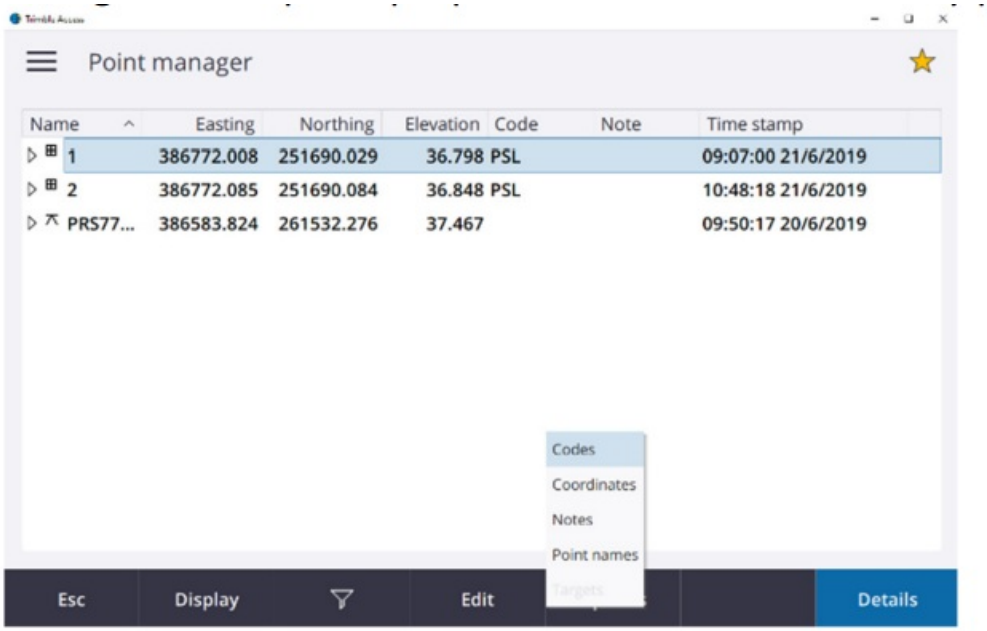
-  Tap the Layer Manager button to reveal the Layer Manager function.



Use the Point files tab to link point data to the Job. Tap the file name to put a selection tick next to it. Use the Map files tab to link line or background image files to the Job. For line data files (e.g. DXF) two taps will be required to make the data selectable for setting out, as indicated by a box around the tick. If the data files required are not initially shown for selection, then use the Browse button to select their location on the Controller.

Point Manager

The Point Manager is accessed by tapping Menu button > Job data > Point Manager. It provides a list of the points stored within, or linked to, the current job. Here it is possible to change certain point properties, such as the code, by pressing Edit

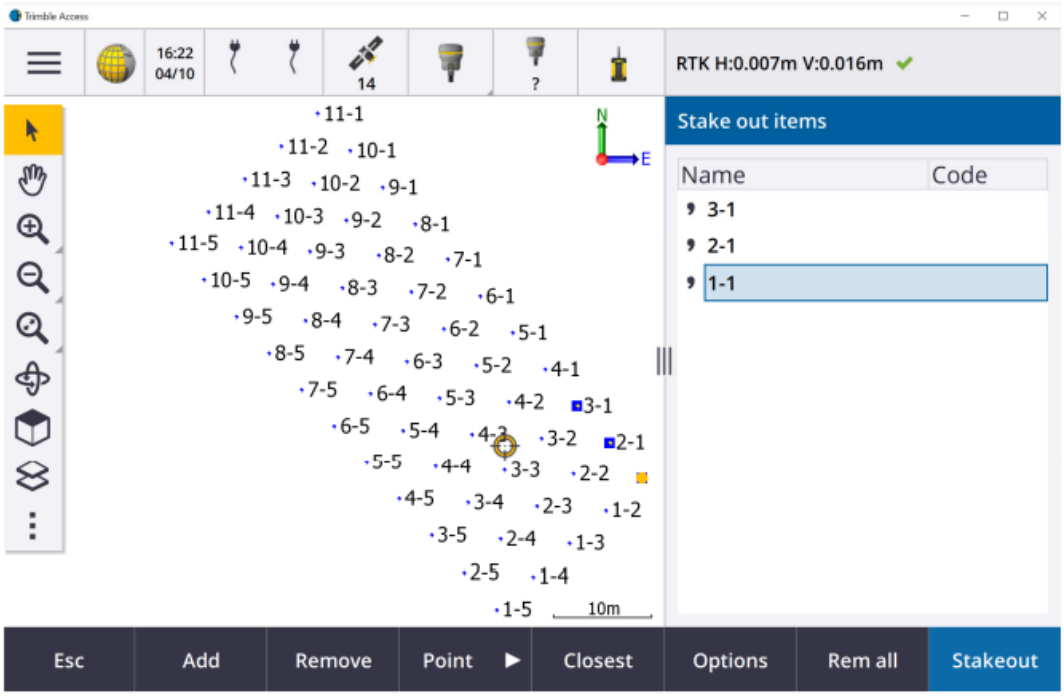


Review Job

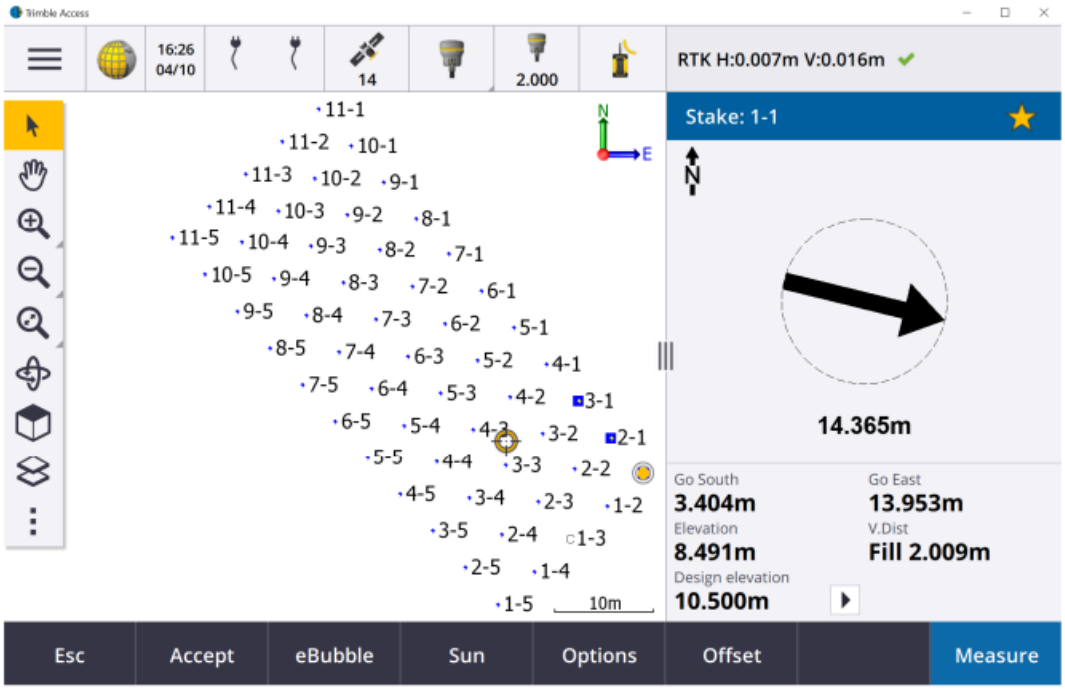
Review Job is accessed by tapping Menu button > Job data > Review job. It provides a record of the actions completed within Access relating to the measurement or stakeout of data. Here it is possible to delete/undelete points. Points aren't deleted completely, just flagged as deleted.

Setting Out Points (Graphical Method)

Tap to select the point or points required on the Map. Press Stakeout to proceed.



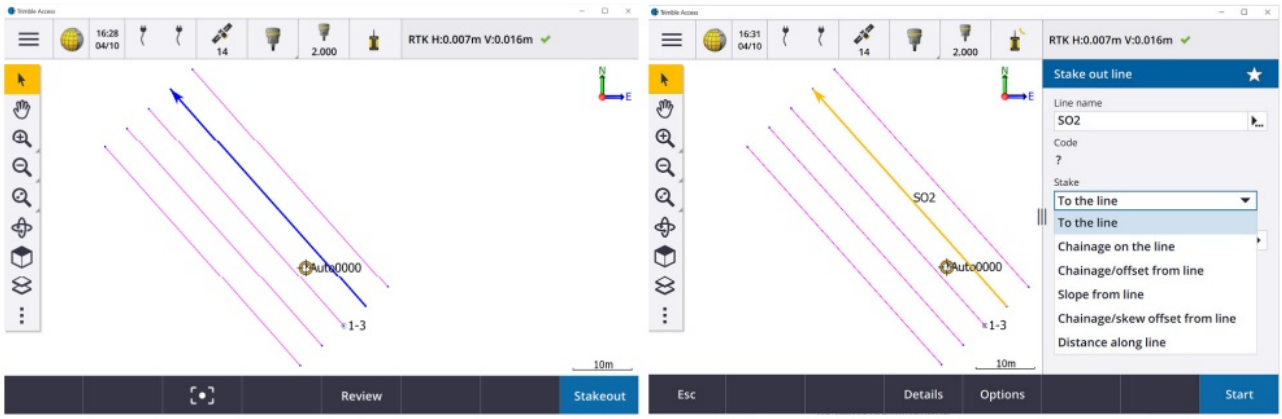
If more than one point is selected, then tap on the point in the list displayed to set it out, or tap the Closest button to set out the closest point to your current position. The Stakeout point screen will appear:



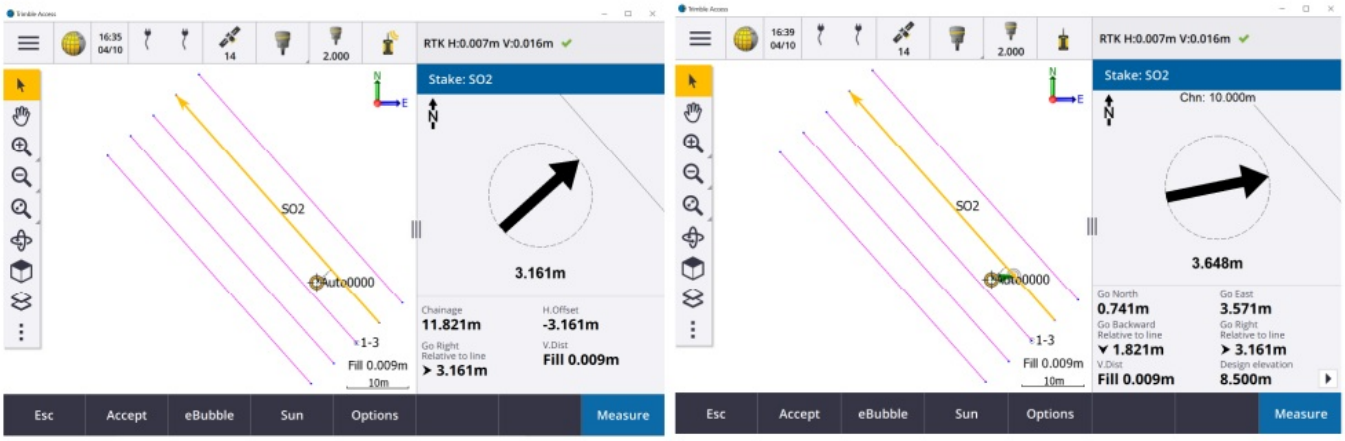
Follow on screen directions to locate the position. Tap Measure or Esc to select another point to set out.

Setting Out Lines (Graphical Method)

Tap on the line/s to set out. Which end of the line is tapped will dictate the direction of the line as indicated by the arrow.



Tap “Stakeout”. Select the line staking method required from the drop-down list:
To the line – reports position relative to the line
Chainage on the line – set out a position along the line (start of line is 0 chainage)
Chainage/offset from line – position along and offset from line Press “Start” once required Method (and any distances/offset info entered).



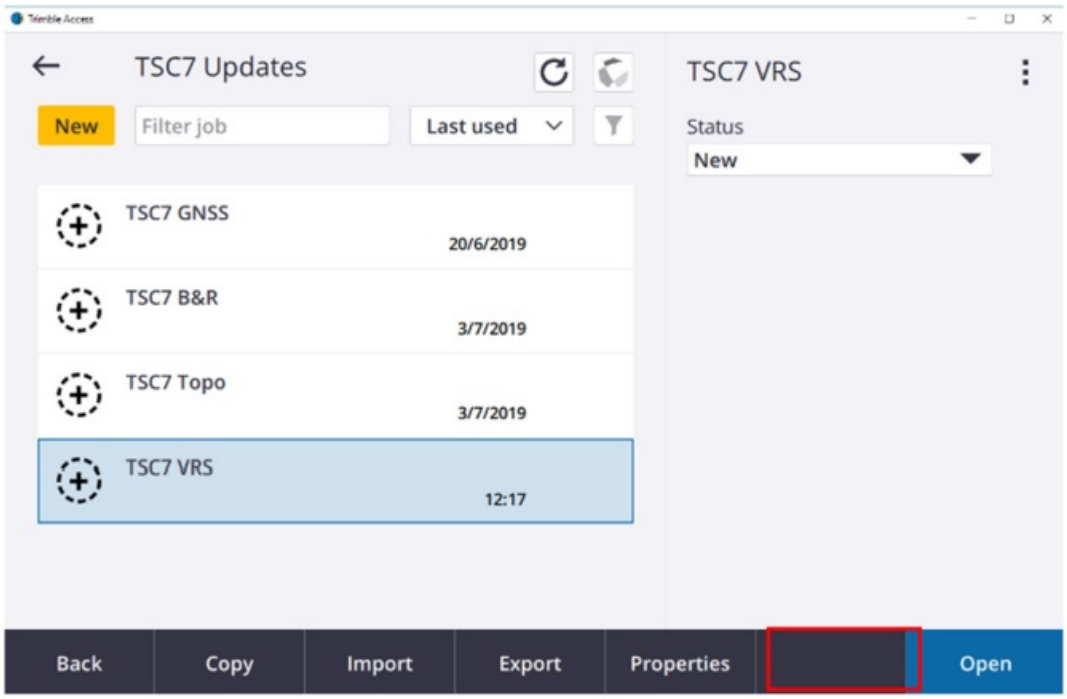
The instructions displayed will depend on the option selected. The example to the left is setting out To the line. The example right is based on selecting Chainage on the line.
Press “Measure” to store set out position and “Esc” to exit function.

Ending the Survey

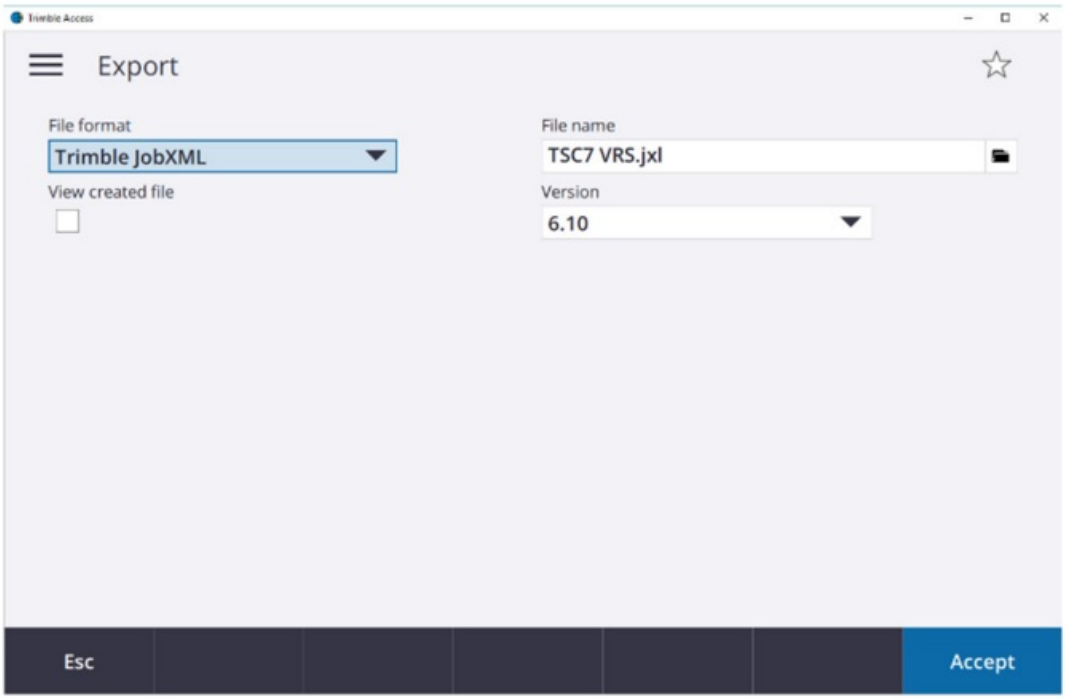
When you have finished work, tap the Menu button, and select Measure > End GNSS survey.

Exporting Job Files

To export data, select the Menu button, tap on the job name, and tap the “Export” button.



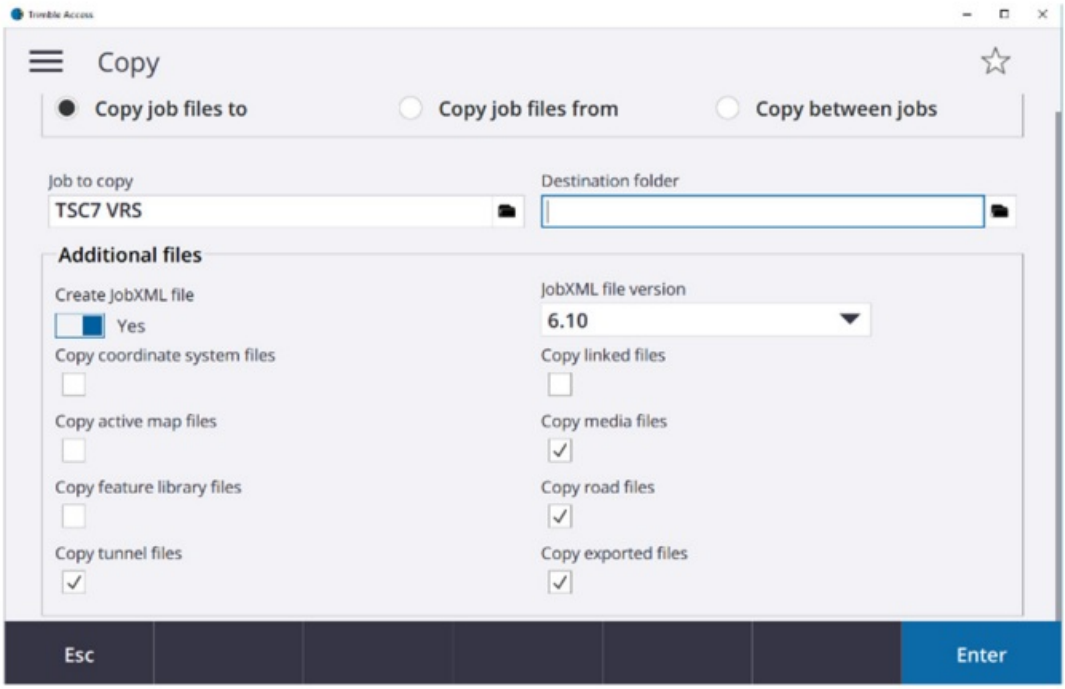
Here you can export to many different file formats/reports. The list is controlled by which Style Sheets are loaded onto the Controller.



To locate an exported file, select the Menu button, tap Job data, and then File explorer.

Copying Job Files

The easiest way to copy data from the Controller to a USB stick is to use the Copy job files to function. This will simultaneously copy any data connected to the job (e.g. photos) and convert to JobXML format too. Select the Menu button, tap the Job name, Copy and then the Copy job files to option. To select a USB stick as the destination, use the folder symbol to the right of the Destination folder box and select the USB drive in the list.



A confirmation is displayed once the data has been copied to the destination folder.

Contact

Got a question?

- Talk: info@korecgroup.com
- 0345 603 1214
- Visit: www.korecgroup.com

Documents / Resources

	KOREC TSC7 Field Controller [pdf] User Guide TSC7, TSC5, TSC7 Field Controller, TSC7, Field Controller, Controller

References

- User Manual

Manuals+, Privacy Policy

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