

## X-PAD for Zipp20 Quick guide

This document describes the basic functions of **X-PAD Survey** software for **Zipp20 total station**.

### Start X-PAD and use of Zipp20 keyboard

Start X-PAD from Zipp20 desktop double clicking on its icon.

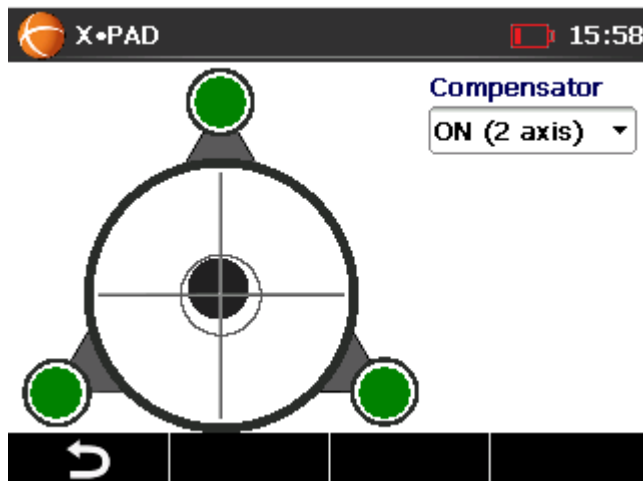


X-PAD for Zipp20 has been designed to work with the buttons of Zipp20 keyboard. Using the F1 to F4 buttons you can select the 4 functions shown in the bottom of Zipp20 display. Also using the numeric keyboard and the other buttons you can perform different operation and selection in X-PAD. For more information please refer to the X-PAD manual.



## Quick survey

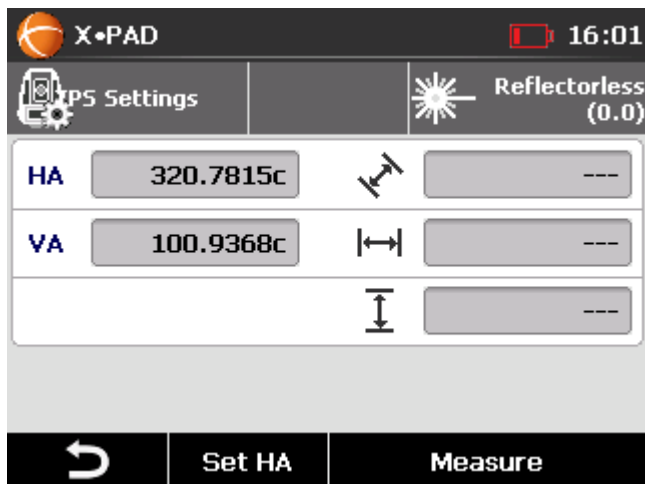
After you start X-PAD you are asked to **level the instrument**. In this screen you can also activate and deactivate the compensator.



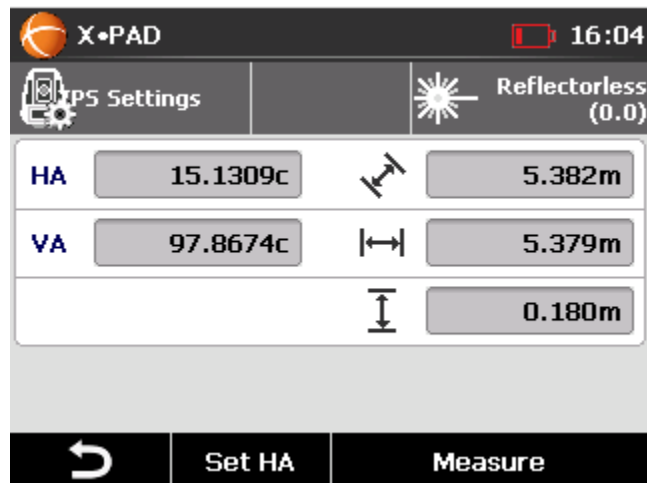
After the instrument is levelled click *F1* to continue.

Before to create or open a job, you are directed to the *Quick Survey* page. The *Quick Survey* page allow you to quickly measure distances without any job creation or station setup.

If you want to skip this function and open or create a job just click on the back icon in the bottom left or press *F1*.



In *Quick Survey* page you can change the TPS settings or change the prism type. We will see these function in the *Survey Point* paragraph in this guide. Click on *Measure* to measure the distance from the station to the target.



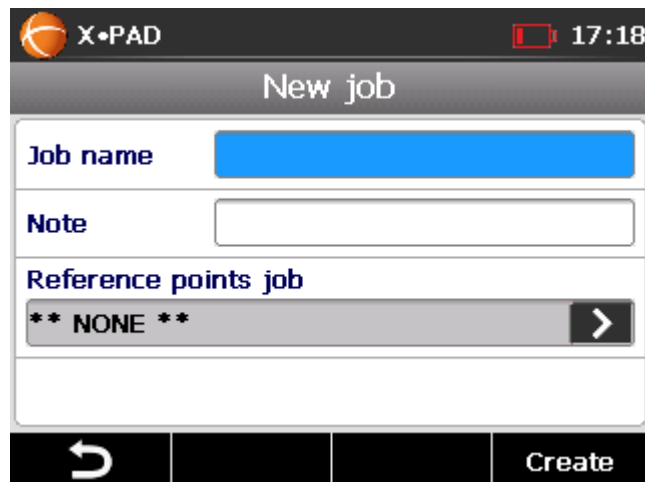
You obtain the slope distance, the horizontal distance and the vertical distance to the target from the total station.

## Job creation

When you exit from *Quick Survey* page you are redirected to the *Jobs* menu. Here you can open an existing job or click on *New* to create a new project.



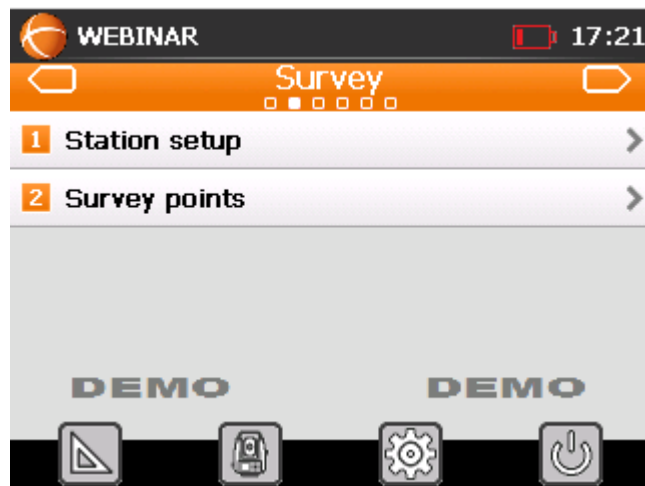
In the next screen you can enter the job name, a description of the job and select a reference job to use.



To write in XPAD you can double tap on the entry field to open the software keyboard, or you can use the numeric keypad of Zipp20 to enter numeric and alphanumeric values. Click on *Create* to create the new job.

## Station setup

After the job is created the next step is to setup the station. Using the keypad open the *Survey* menu and select *Station setup*. To open the *Survey* menu you can use the navigation button on the Zipp20 or using the arrow buttons on the top right and left of the screen.



In the *Station setup* menu you have different orientation methods:

- Orientation to known point
- Orientation by azimuth
- Free station
- Reference plane
- No orientation

Select the orientation method.

In this example we will perform an orientation by known azimuth.

**WEBINAR** 17:29

**Station setup**  
Choose method

☐ **Orientation to known point**  
Station position: **Known**  
Orientation: **Known point**

☒ **Orientation by azimuth**  
Station position: **Known**  
Orientation: **Azimuth**

☐ **Free station**  
Station position: **To calculate**  
Orientation: **Known points**

Reference plane

Page Down Next

Select *Orientation by azimuth* and click *Next* to start the orientation.

In the next screen you must select the station (you can create a new point for the station or select it from the database or graphically from the CAD). To create a new station enter the station ID, the instrument height, a code and input the station coordinates.

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**Station setup**  
Known position

Station **100**

Instrum.height **1.200m**

Code

E **10.000m** N **10.000m** Z **5.000m**

Next

Enter the known azimuth value, aim the total station to the direction with known azimuth and click on *Measure* to orientate the station.

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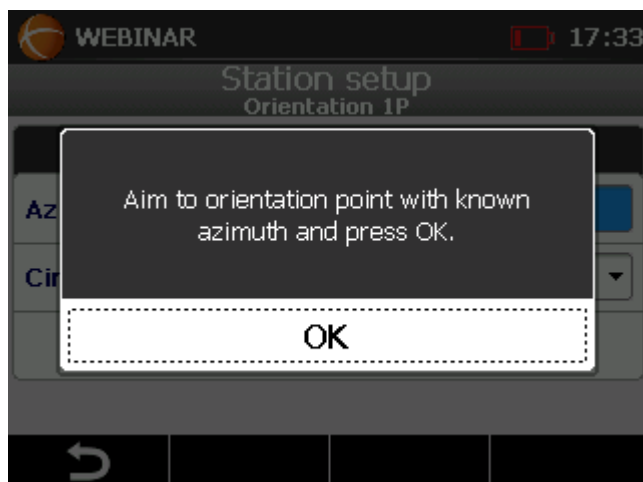
**Station setup**  
Orientation 1P

**Orientation point**

Azimuth **0.0000c**

Circle **Azimuth**

Measure

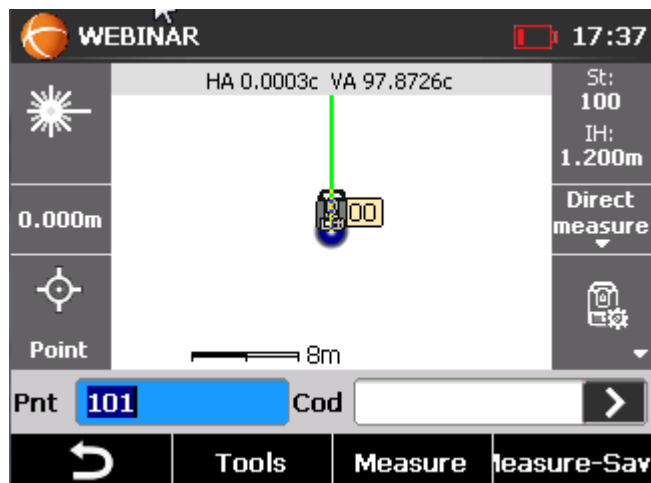


After you have measured the point you can review the setup. If you click on *Report* you can export the setup results in XML or CSV format. Click on *End* to save the orientation.



## Survey Points

After the orientation, to start to survey points click on *Survey points* in *Survey* menu.



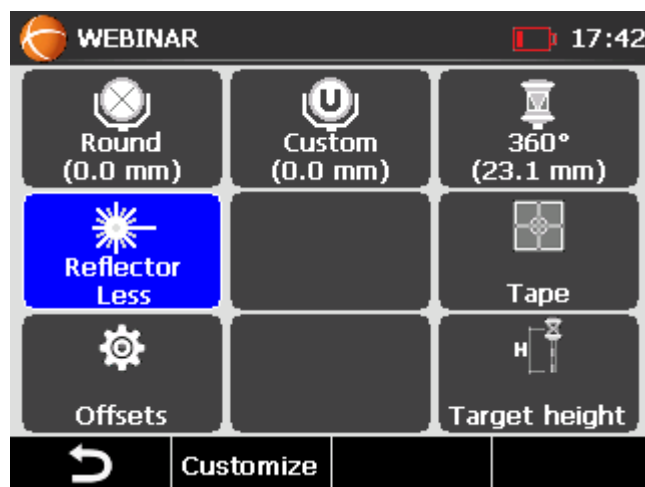
In the bottom of the screen you can enter the point ID and the code.  
To measure a point you have different options. Press *Measure* button to measure the point and review the measure before to store the data.



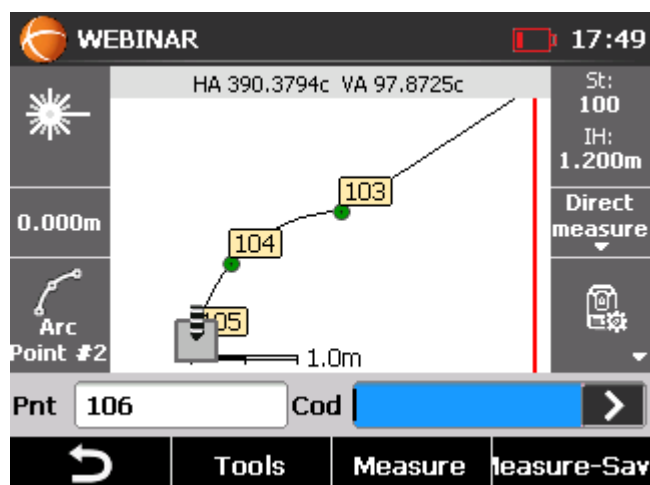
Click Save to save the point in the database.

If instead you want to save the point immediately without review the results, just click on *Measure-Save* button.

To change the prism click on the prism button on the top left or press the FNC1 button.

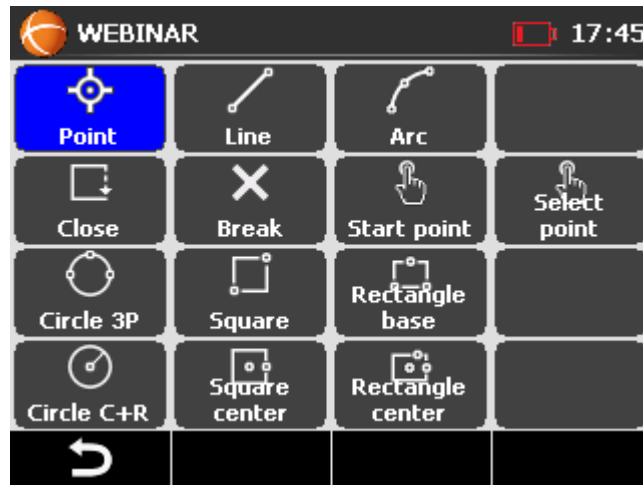


You can select the prism model you want to use and define the height of the target. The three prisms you have in the top buttons are the favourite prisms: to change the favourite prisms click on the *Customize* button and follow the step-by-step procedure. To use a prism just tap on it.



In XPAD, during the survey, you can directly draw while you measure: clicking on the draw button you can select what element you want to draw. You can select between different figures.

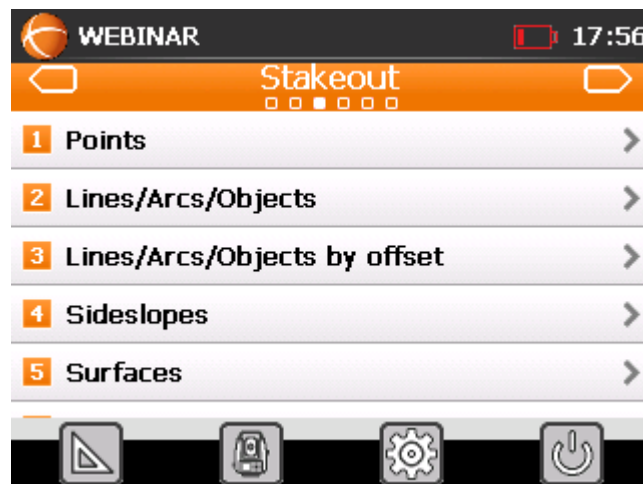




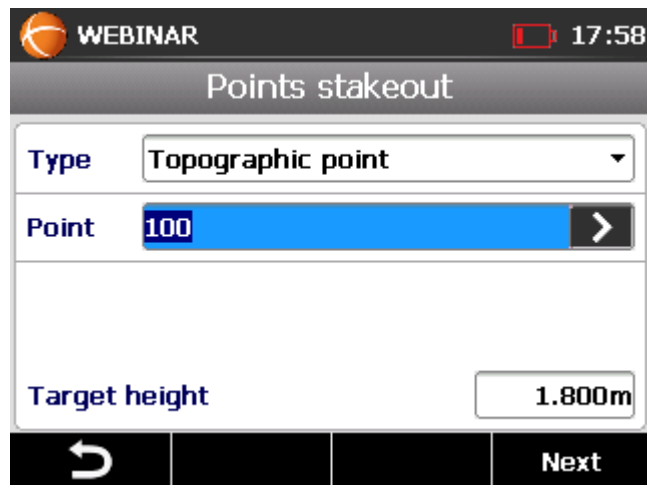
## Point Stakeout

To enter in the point stakeout, open the *Stakeout* page.

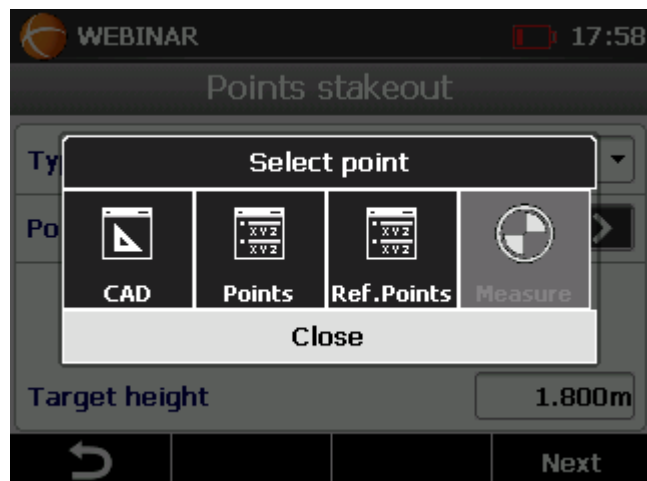
Here you can stakeout different elements like points, lines, surfaces, etc. To stakeout a point select *Points* from the list.



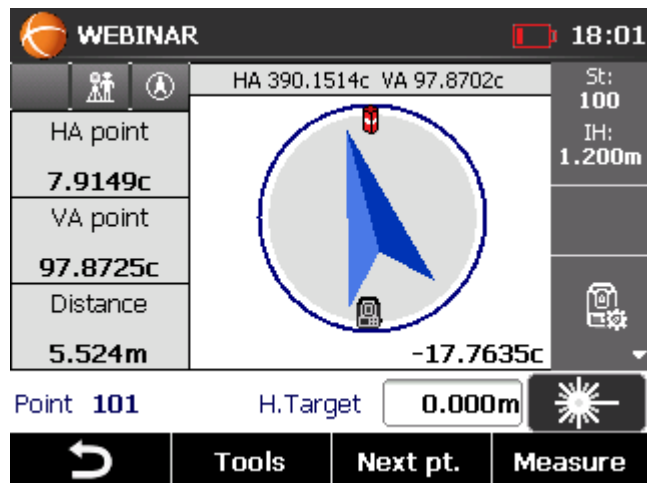
In the next screen you have different options. You can select to stakeout a topographic point from the database, enter manually the coordinates of the point to stakeout, or creating a list of points.

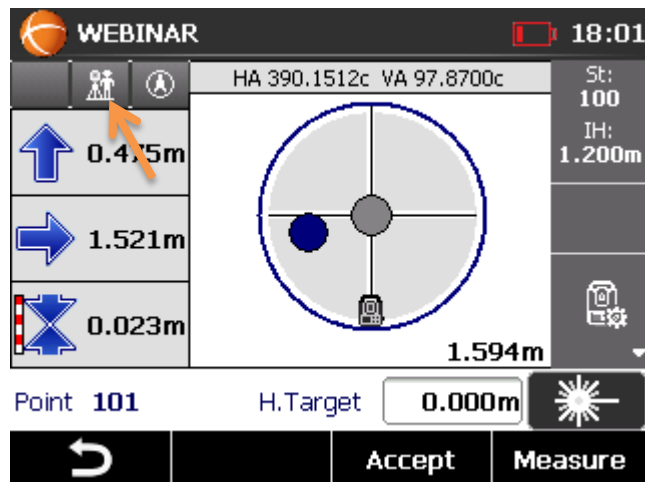


To stakeout a single point select topographic point as type, then enter the point ID or select it from the point list or graphically from the CAD.



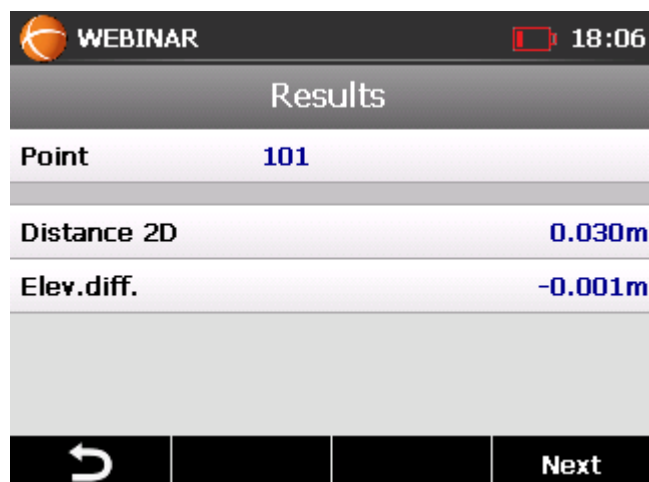
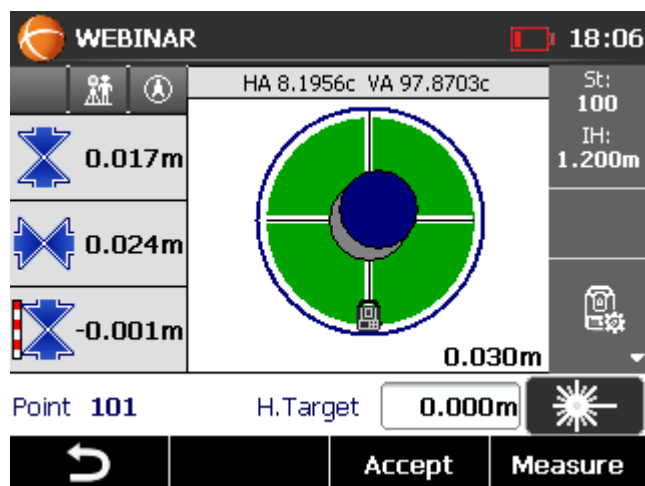
When you have selected the point click *Next* to start.  
Looking at the arrow you can adjust the direction; to measure the distance to the point to stakeout, just click on *Measure* button.



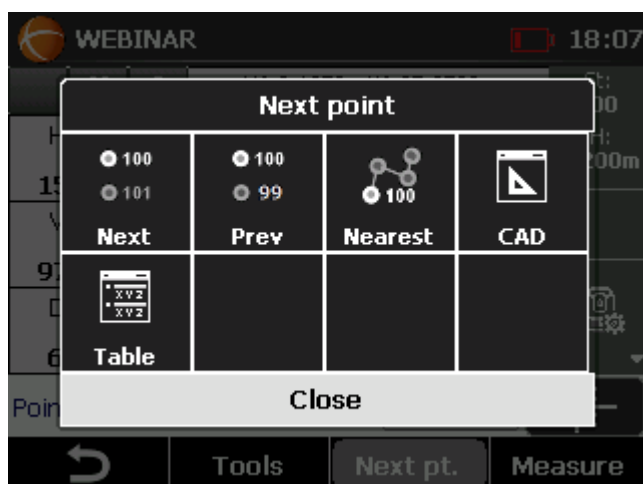


To change the reference click on the small button on the top left of the screen. You can define what is the reference used for the direction of the arrows.

When you are inside the tolerance, you can click on Accept to store the measure.

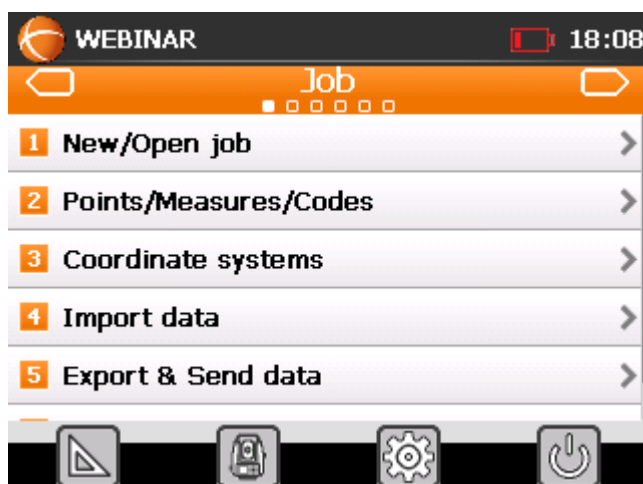


To stakeout the next point click on *Next pt.* button and select which method you want use to select the next point to stakeout.

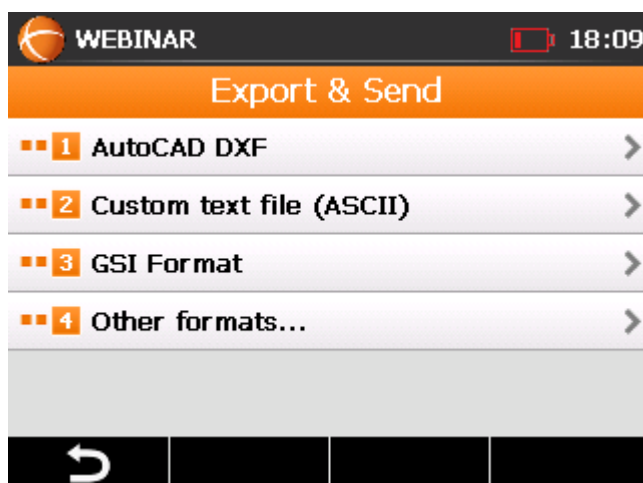


## Data export

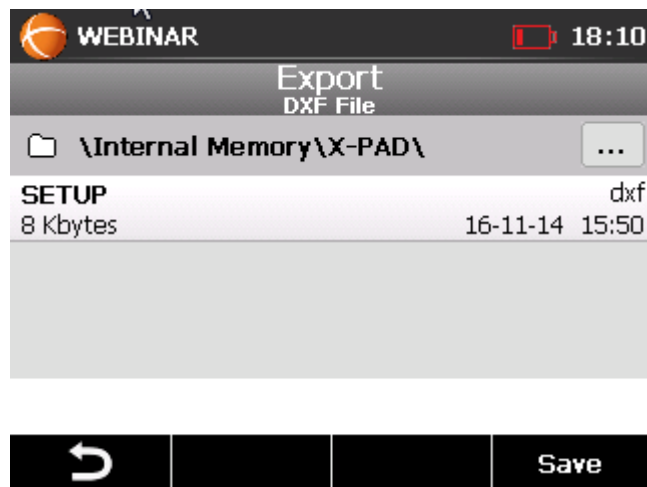
You can export the data in different formats, like DXF, ASCII, LandXML, etc. To export your job from *Job* menu select *Export & Send data*.



Then select the export format and the export location.



As default the export data are saved in X-PAD folder into the internal memory. If you want to export directly on the USB stick, click on the select folder button.



And select *Hard Disk* as folder to export the data



In this way the data are exported on the USB Stick.