



X-PAD Ultimate – Learn how to use the SP features

Service Pack #1 2023

Spring 2023



Learn how to use the SP features



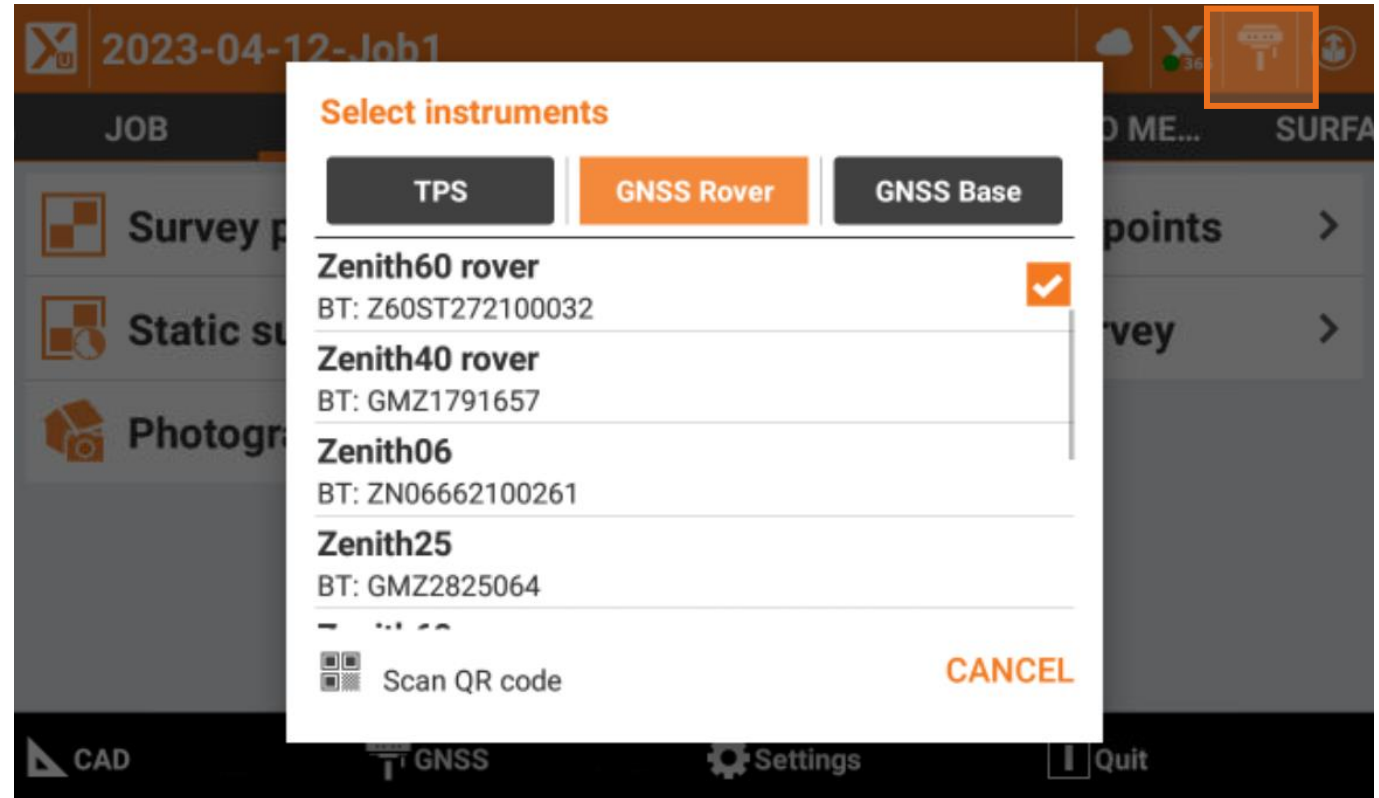
- This presentation is intended to guide the user to use the main functions introduced with the new X-PAD Ultimate Service Pack
- This presentation does not cover all news in the Service Pack
- For more information on all updates please refer to the X-PAD Ultimate presentation and to release notes

MISCELLANEOUS

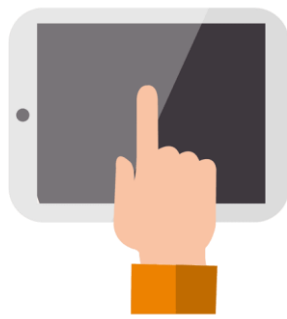
Quick instrument selection



1. To quickly change instrument in a single click, press the new button on top-right of the screen
2. Select from the list the instrument
3. Or scan the instrument QR code for an automatic connection

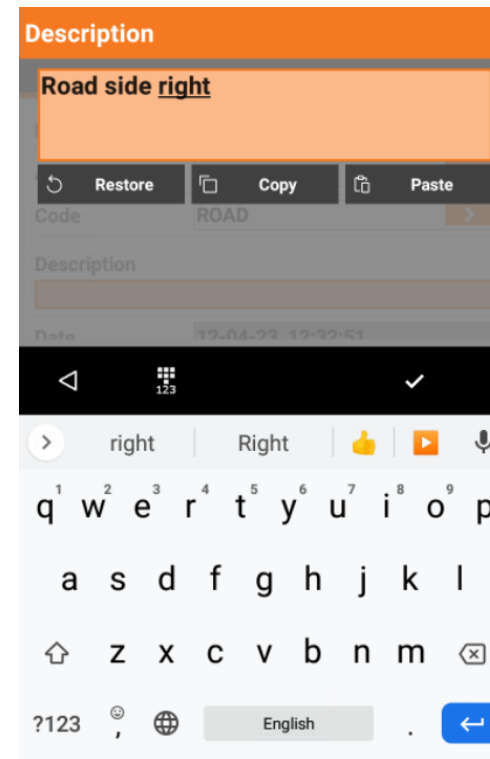
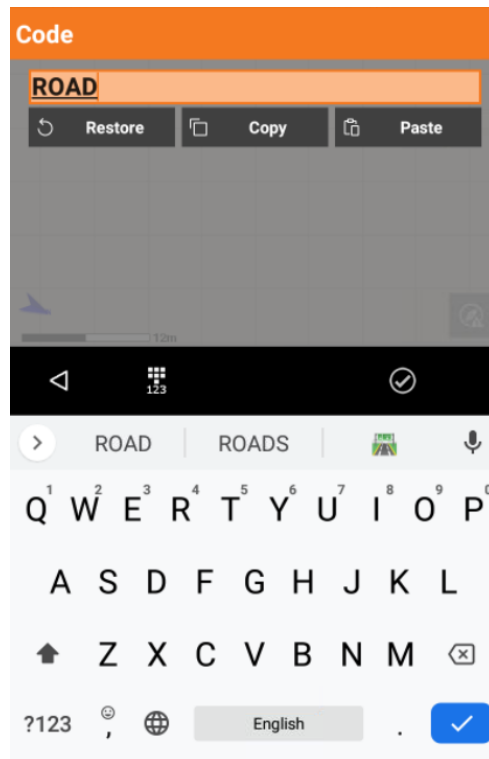


Input fields – Advanced clipboard



This new function allows to copy and paste different informations in the input fields

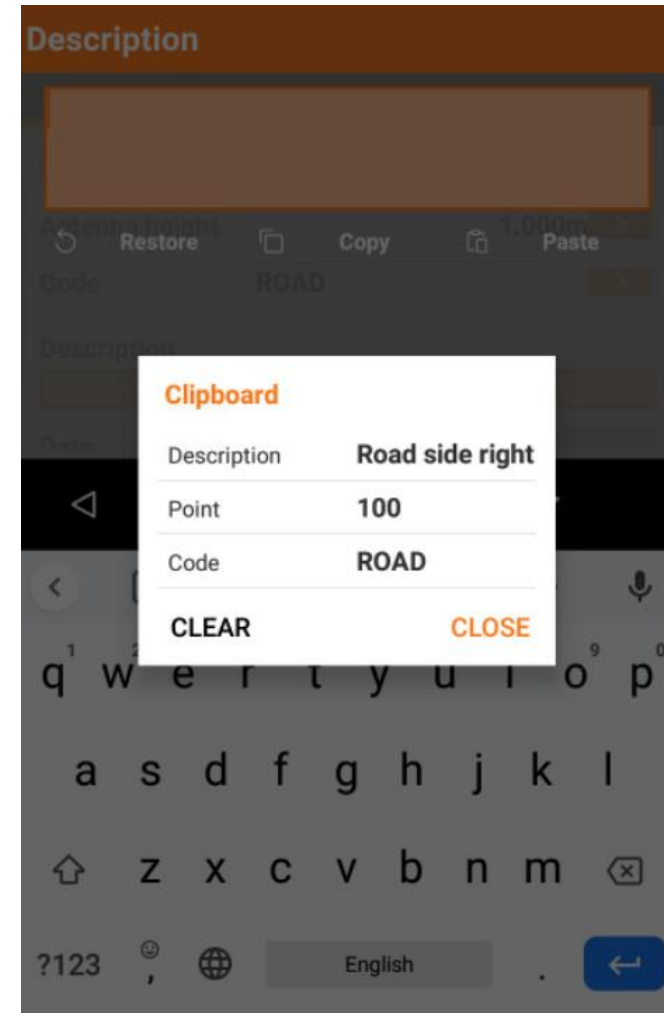
1. Click on an input field and enter a value, then press Copy. You can copy different informations



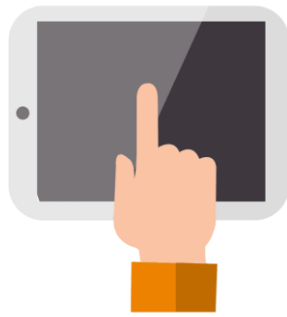
Input fields – Advanced clipboard



3. Each copied value is stored in the clipboard with the field description
4. Click on a new input field and press Paste to recall the clipboard and paste previously recorded values

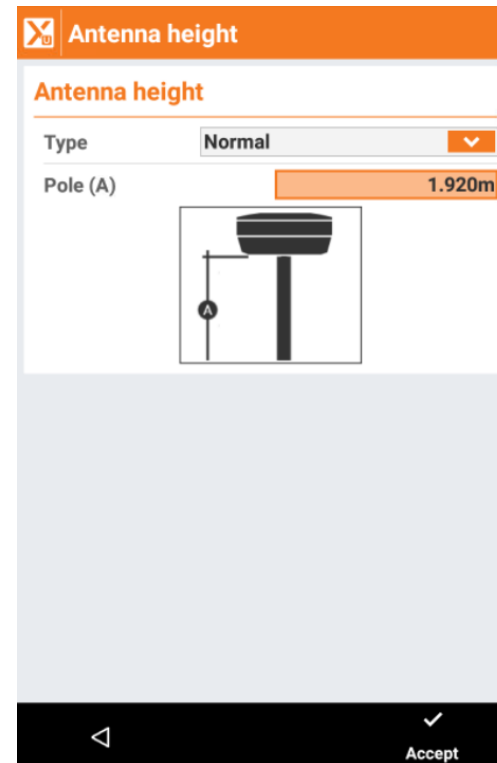
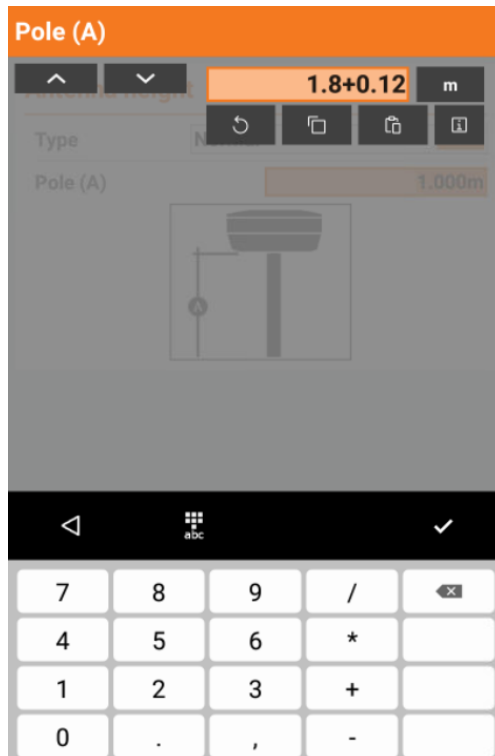


Input fields – Formulas



The new input fields also allow to calculate results by mathematic formula. For example:

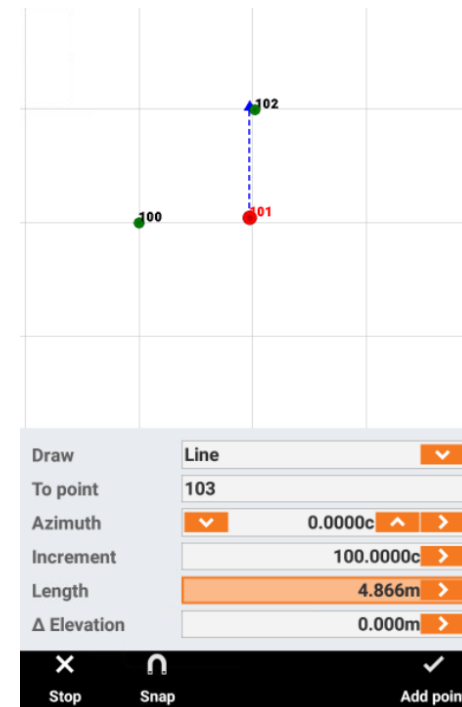
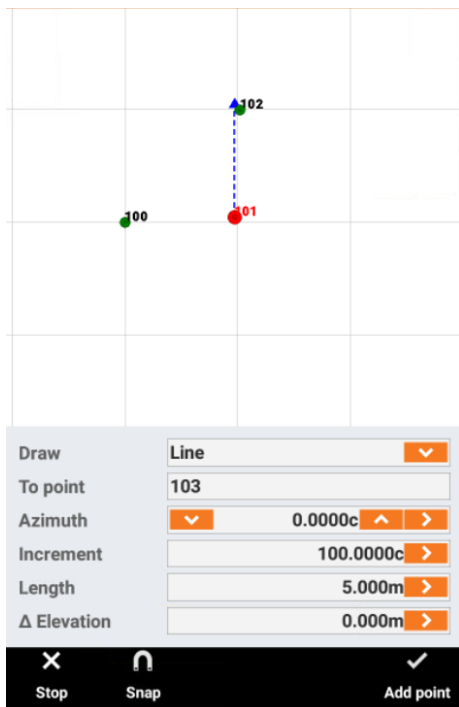
1. Click on a input field and enter a formula to calculate the result



Input fields – Formulas



1. Distance by points: in a distance field, enter the 2 points separated by comma to calculate the horizontal distance between them
2. Azimuth corr. By points: in an azimuth field, enter the 2 points separated by comma to calculate the azimuth between them



Load photos from gallery

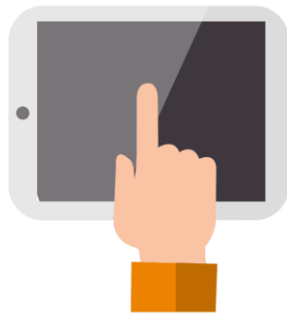


1. Measure a new point and open Sketch page
2. Click on folder icon to load a photo from photo gallery
3. It is also possible to assign photo from existing points editing the point



GNSS

GNSS panel – DOP values



1. While in an application click on GNSS panel to switch between satellite numbers view and DOP view



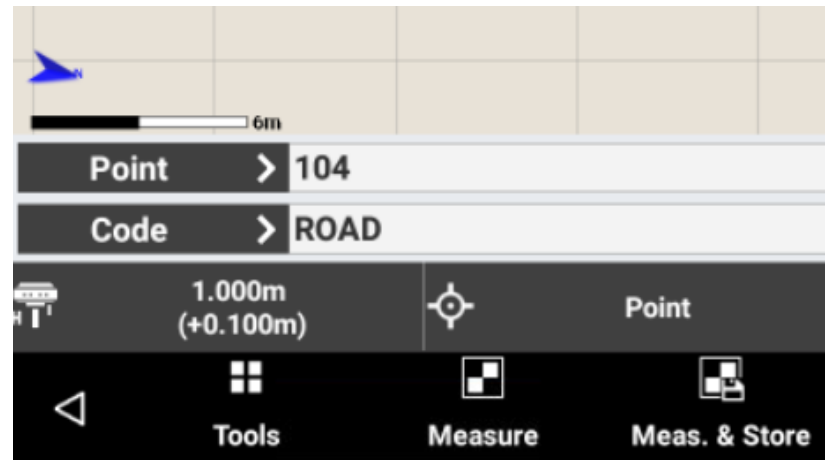
Antenna height – additional offset



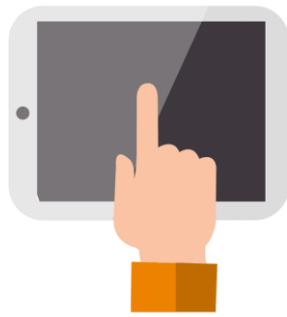
You can apply and visualize an additional offset to GNSS pole height.

1. Create or modify an existing GNSS instrument profile
2. In the Antenna page you can enter an additional offset
3. Now the additional offset is visualized in all pages to avoid errors

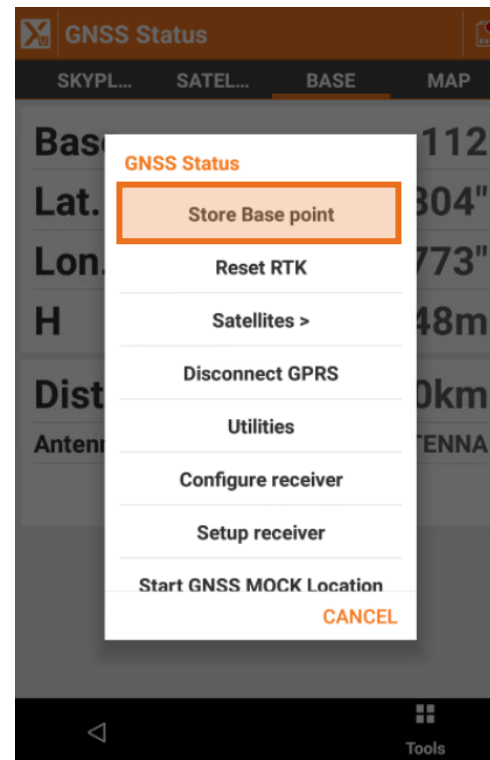
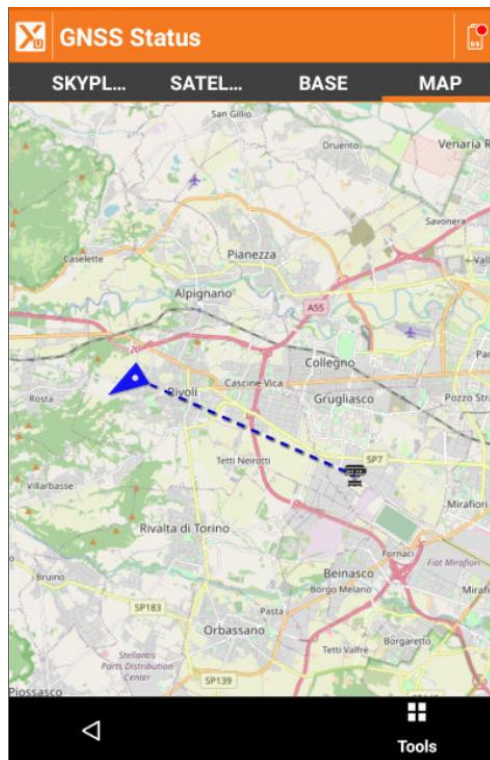
The screenshot shows the 'Modify profile' screen with an orange header. Below the header, the 'Antenna' section is visible. It contains three input fields: 'Model' set to 'Integrated', 'Height' set to '1.000m', and 'Additional offset' set to '0.100m'.



Base position – visualization and store



1. Open the GNSS status page
2. Click on Map to visualize the base position and the baseline
3. Click on Base to visualize base coordinates, and click on Tools to save the base position in topographic point list



Z60 and corrections through local hot-spot



It is now possible to configure Zenith60 base to stream corrections through its hot-spot

1. Create a new Zenith60 base profile with X-PAD
2. Select the desired RTK correction method (for example radio or GPRS)
3. Follow the instructions to connect 3th party devices and get corrections

New profile

RTK - transmit corrections

Internal radio
Uses the internal UHF radio of the receiver

Internal GPRS (receiver)
Uses the internal GPRS of the receiver

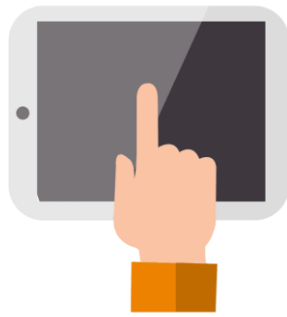
External radio
Uses an external UHF radio

External GPRS (controller)
Uses the internet connection of the controller (GPRS/WiFi)

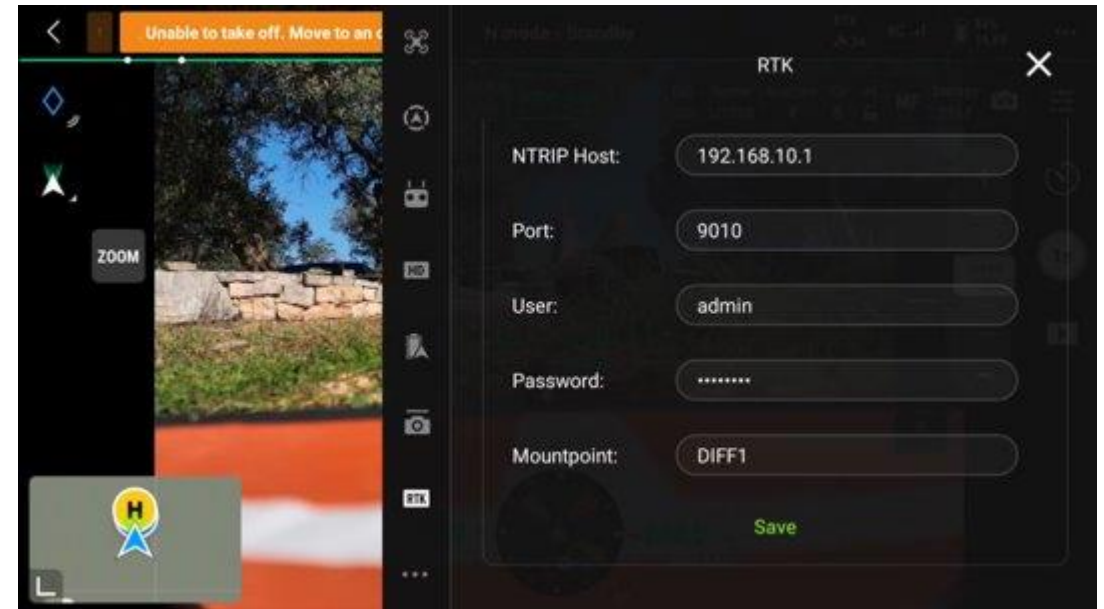
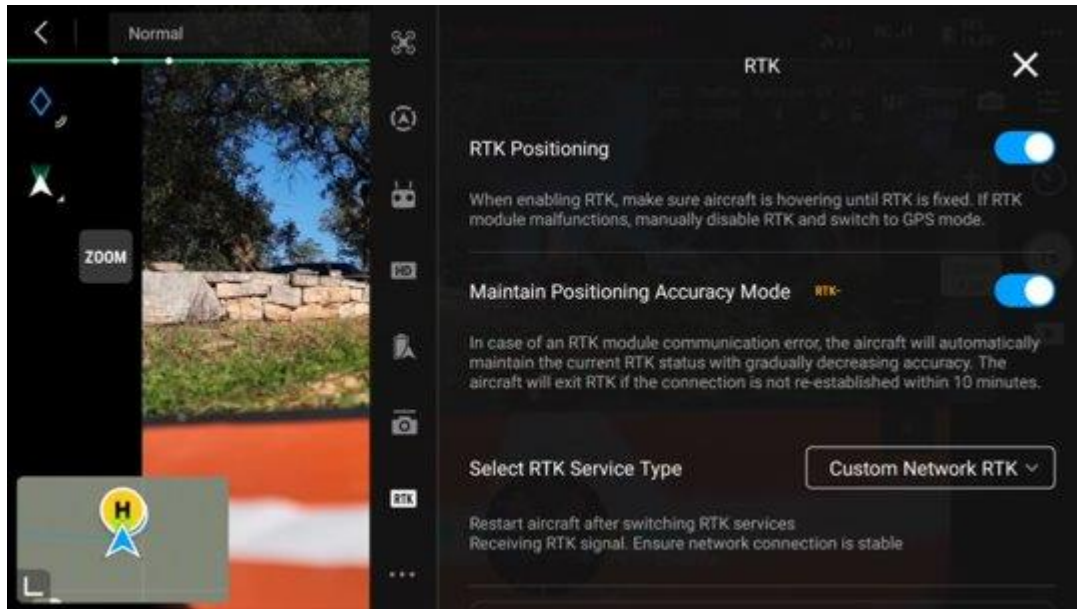
i The base can send RTK corrections as a local WiFi network.
1. Connect your tablet/phone to a WiFi network **Z60serial number**
2. Create an NTRIP connection to IP address **192.168.10.1**, port **9010**
3. UserID and Password are: **admin password**
4. One single mountpoint is made available: **DIFF1**

◀ Next

Z60 and corrections through local hot-spot



This application can be for example used to connect RTK drones to Zenith60 base, to receive RTK corrections from Zenith60 hot-spot





TPS

Pressure on sea-level



1. Start a station setup procedure and click on Atmospheric coefficient
2. Activate the corrections and enter the current altitude to calculate, starting from pressure at sea level, the current pressure

The screenshot shows the 'Station setup' screen. It has an orange header with a close icon and the text 'Station setup'. Below the header, there are several input fields: 'Station' with a dropdown menu showing 'ST_0001', 'Instr. Height' with a text input field containing '0.000m', 'Code' with a dropdown menu, and 'Scale factor (distances)' with a text input field containing '1.000000000'. At the bottom of the screen, there is a navigation bar with a back arrow, a button with a cloud icon labeled 'Atmospheric coeff.', and a 'Next' button with a right arrow.

The screenshot shows the 'TPS Coefficients' screen. It has an orange header with a close icon and the text 'TPS Coefficients'. Below the header, there are two sections: 'Temperature and Pressure' and 'Refraction & Sphericity'. The 'Temperature and Pressure' section includes: 'Atmospheric correction' with a toggle switch, 'Temperature (°C)' with a text input field containing '35.0', 'Altitude' with a text input field containing '800.000m', 'Pressure - sea level (mb)' with a text input field containing '1013', 'Pressure (mb)' with a text input field containing '927', 'Humidity (%)' with a text input field containing '60', and 'Atmospheric PPM' with a text input field containing '45.0'. The 'Refraction & Sphericity' section includes: 'Refractive/Sphericity' with a toggle switch and 'Refraction coeff.' with a text input field containing '0.13'. At the bottom of the screen, there is a navigation bar with a back arrow, a 'Tools' button with a grid icon, and an 'Accept' button with a checkmark icon.

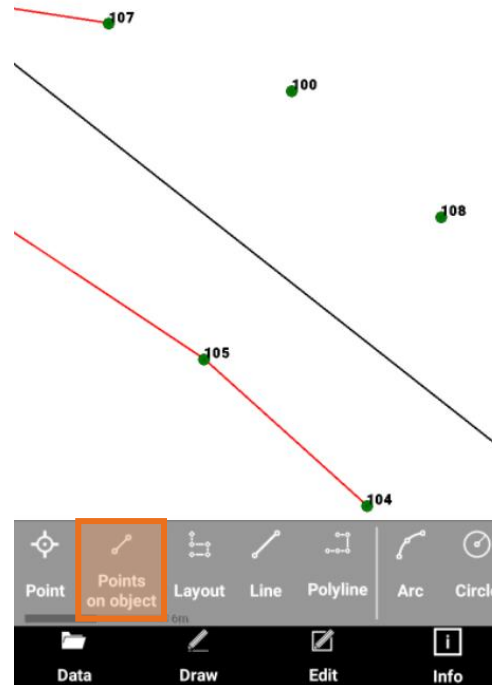
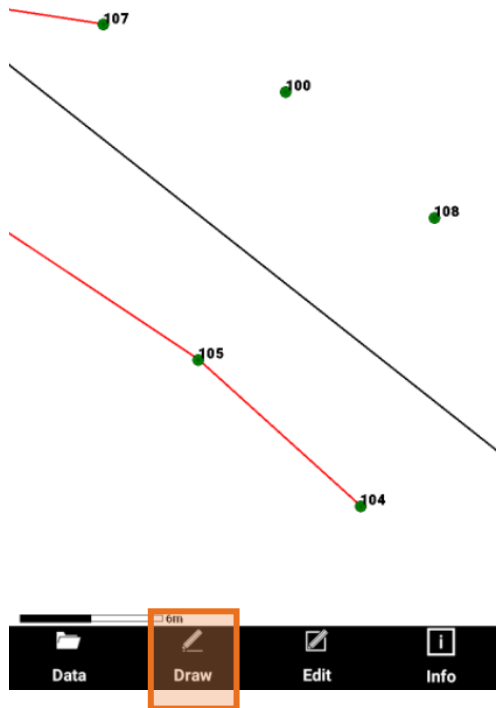
CAD & MAPS

Points on object



Functions to create points on objects in CAD have been improved

1. Open CAD and click on DRAW
2. Click on Points on object



Points on object

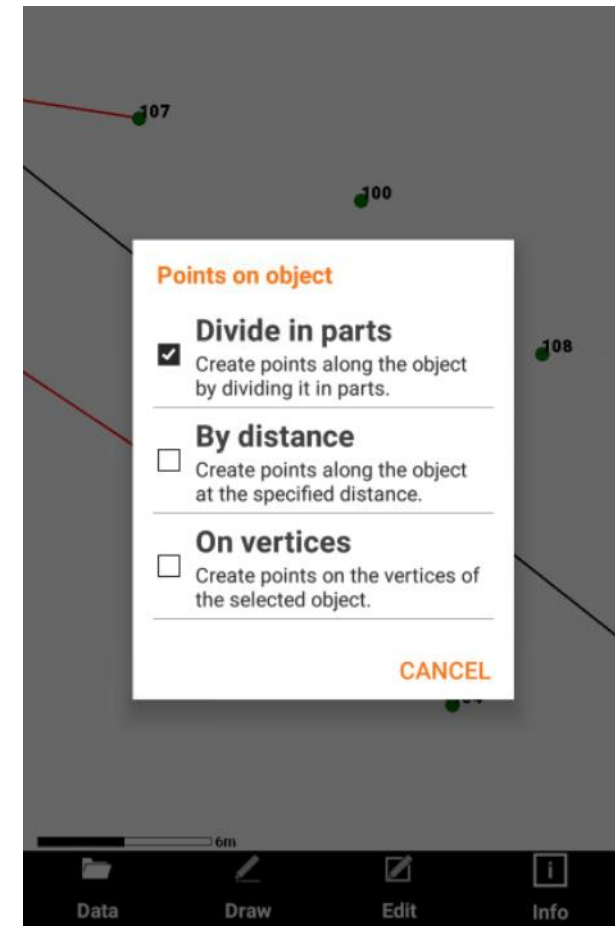


Functions to create points on objects in CAD have been improved

3. Select the option

- Divide in parts: to create points along the object dividing it in equal parts
- By distance: to create points along the object dividing them by entered distance
- On vertices: automatically create points on the vertices of selected object

4. Select the object (for example a polyline) to create the points





X-PAD365

Collaborative site and jobs

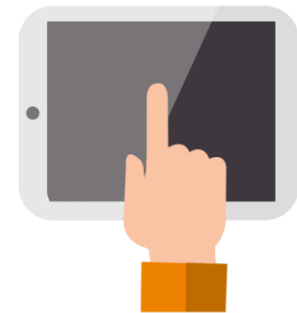


Collaborative jobs and site has been extended to X-PAD365 Professional accounts

1. Login in X-PAD365 with your PRO or ENTERPRISE account
2. When you create a site or a job select the option collaborative
3. Job is now collaborative, so it is automatically synchronized in the cloud

Check our guides and webinars on X-PAD365 to see more

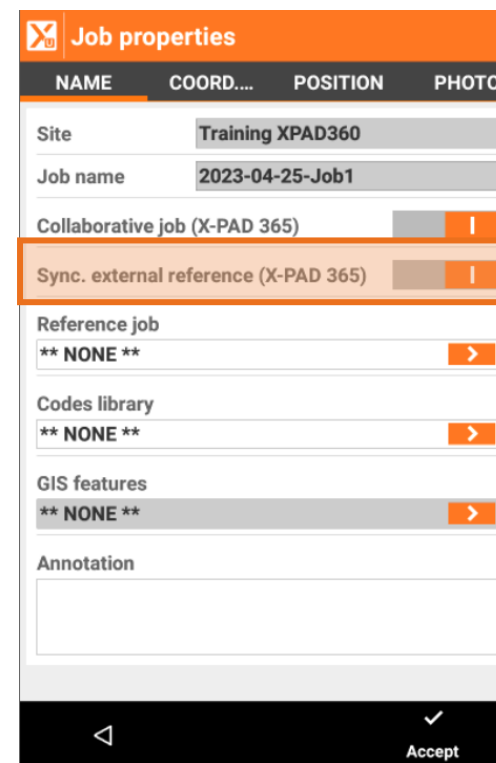
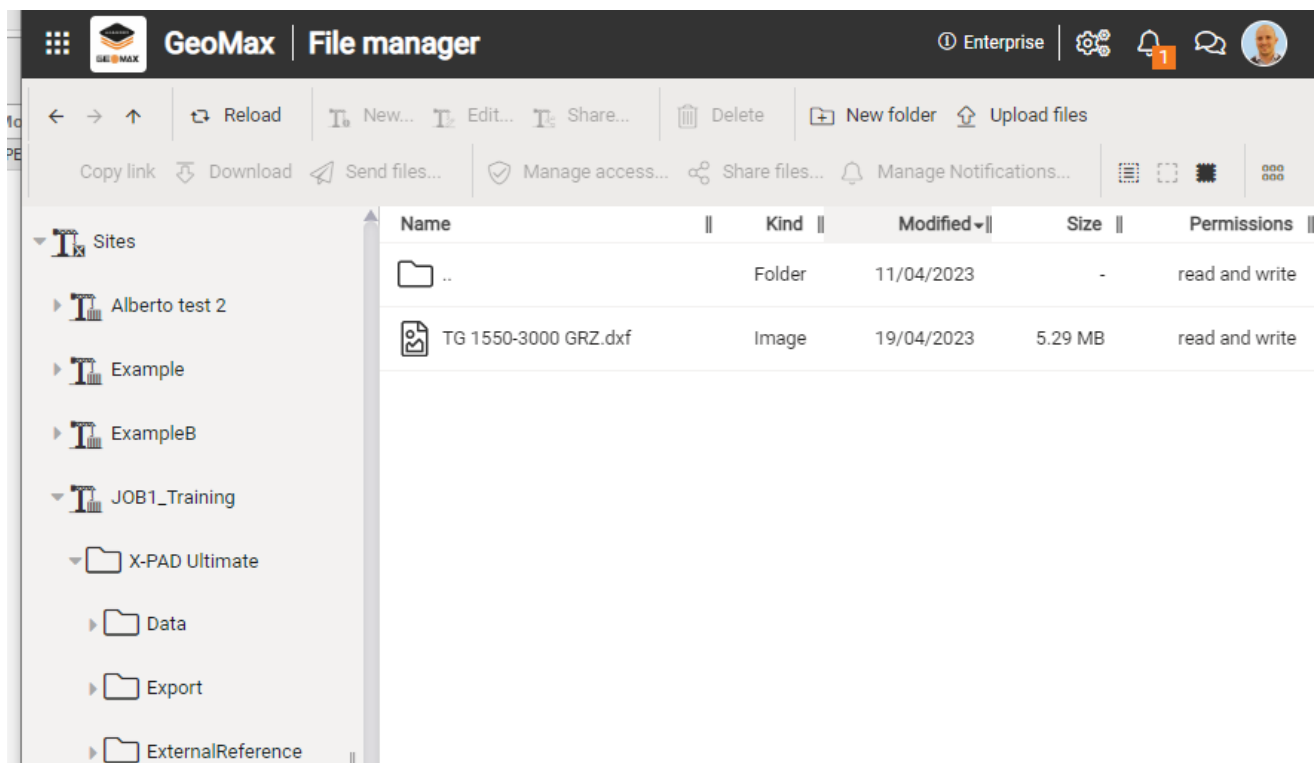
A screenshot of the X-PAD365 mobile application interface for creating a new job. The title bar is orange and says "New job". Below it is a table with columns: NAME, COORD..., POSITION, and PHOTO. The table contains one row: Site: Training XPAD360. Below the table are several form fields: "Job name" with the value "2023-04-17-Job1", "Collaborative job (X-PAD 365)" with a toggle switch turned on, "Sync. external reference (X-PAD 365)" with a toggle switch turned off, "Reference job" with a dropdown menu showing "** NONE **", "Codes library" with a dropdown menu showing "** NONE **", and "GIS features" with a dropdown menu showing "** NONE **". At the bottom is an "Annotation" text area. The bottom navigation bar has a camera icon labeled "Take photo" and a checkmark icon labeled "Accept".



External references in collaborative jobs

Synchronization of external files for collaborative jobs has been improved

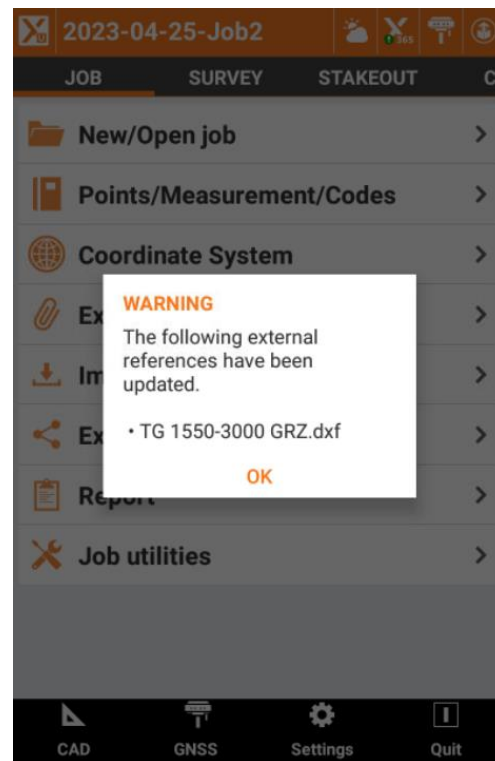
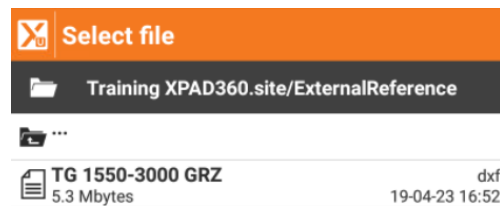
1. From web platform, upload a file in a Site/ExternalReference folder
2. Create a job as collaborative in that site.



External references in collaborative jobs



3. The files loaded in the external reference folder are visible on controller
4. If a new version of the external file is uploaded on server, the new version is automatically used



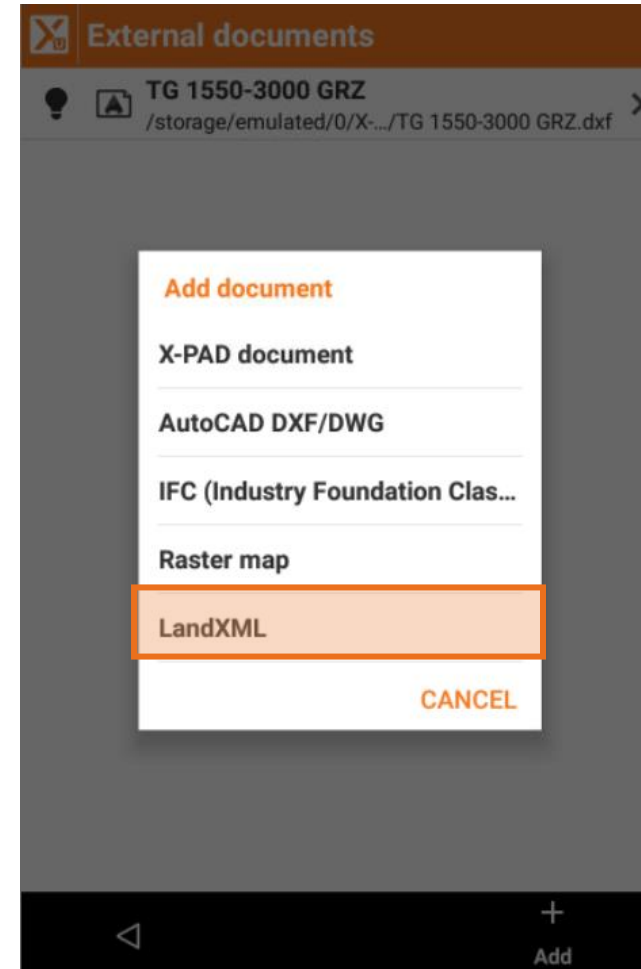


IMPORT & EXPORT

External reference: LandXML

It is now possible to use a LandXML as external reference (which includes points, surfaces and roads)

1. Open External references page
2. Click on Add and select the new option LandXML

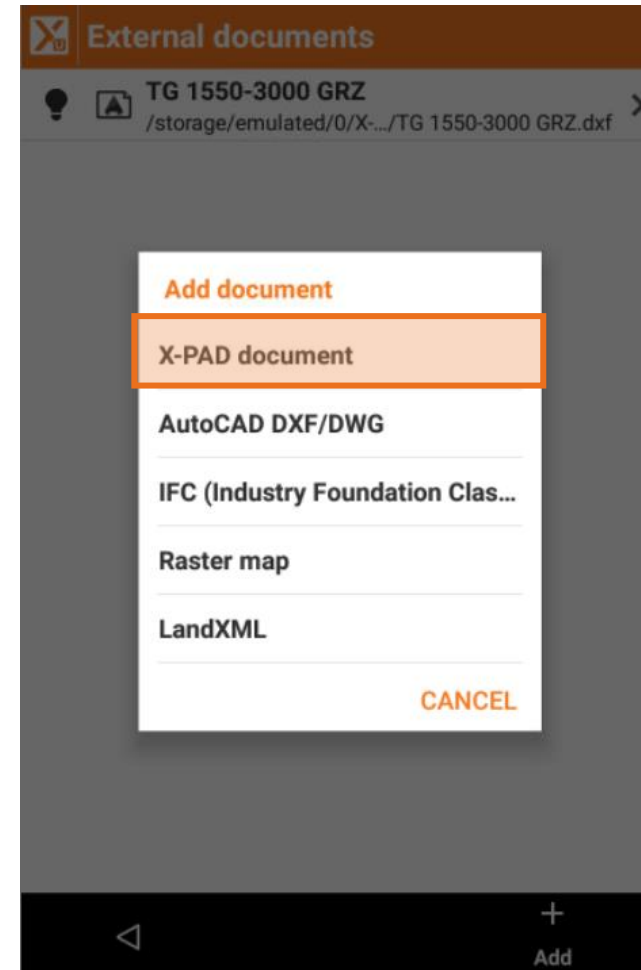


External reference: X-PAD job with Surfaces and Roads



When an X-PAD job is used in another job as external reference, its surfaces and roads are made available

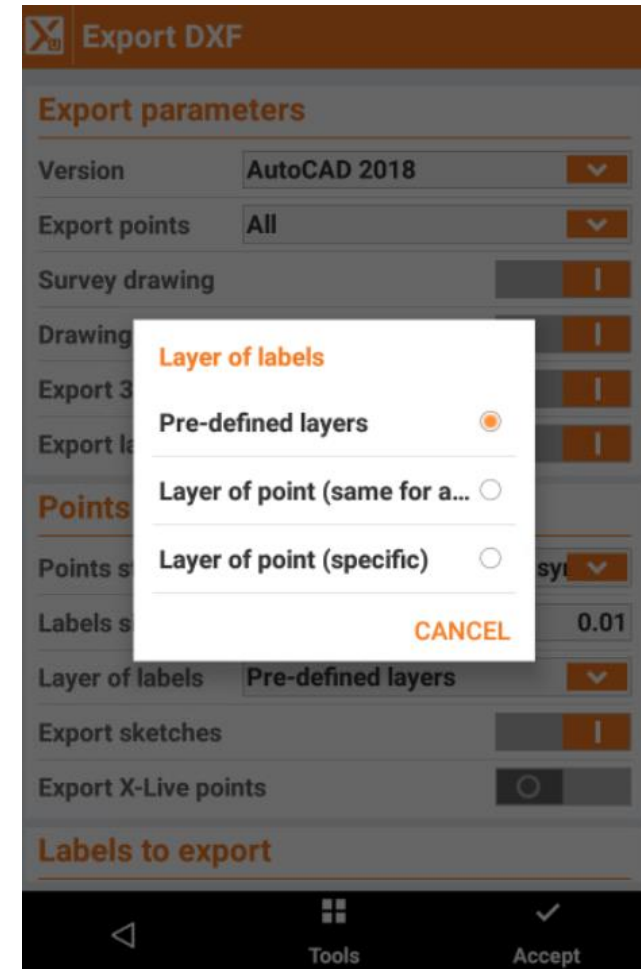
1. Open External references page
2. Click on Add and select X-PAD document



Export DXF - Layer

New option in DXF export to have labels stored in a layer in which first pars is the layer of the point to which they belong

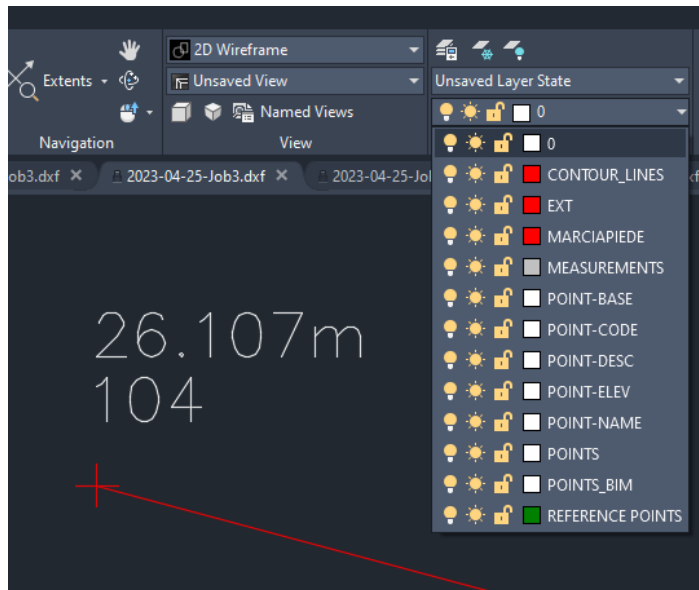
1. Select Export DXF
2. Click on Layer of labels and select pre-defined layers or new option



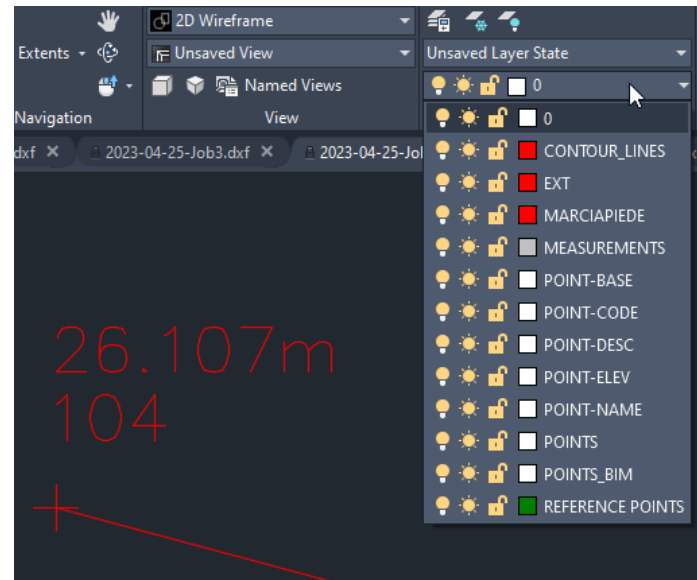
Export DXF - Layer



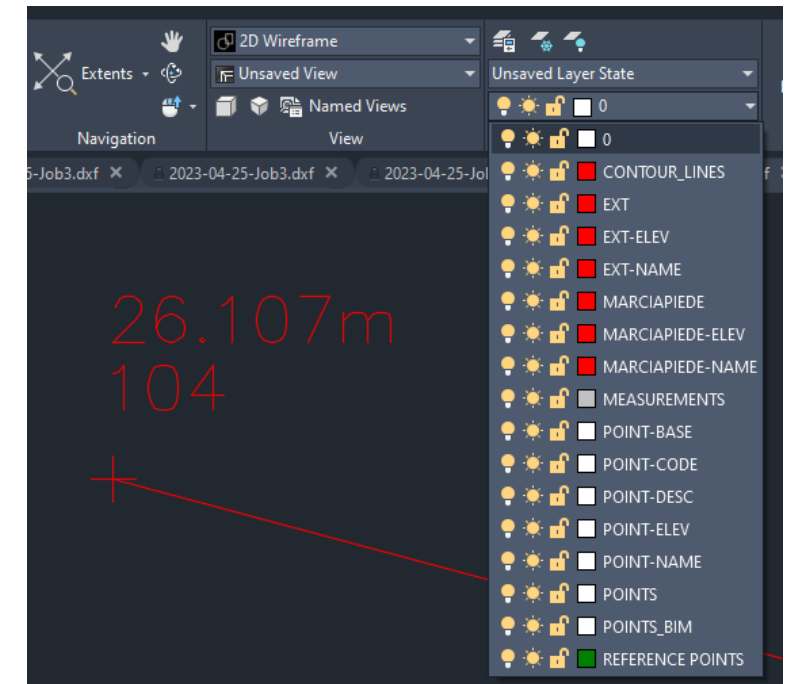
Pre-defined



Layer of point (same for all)



Layer of point (specific)

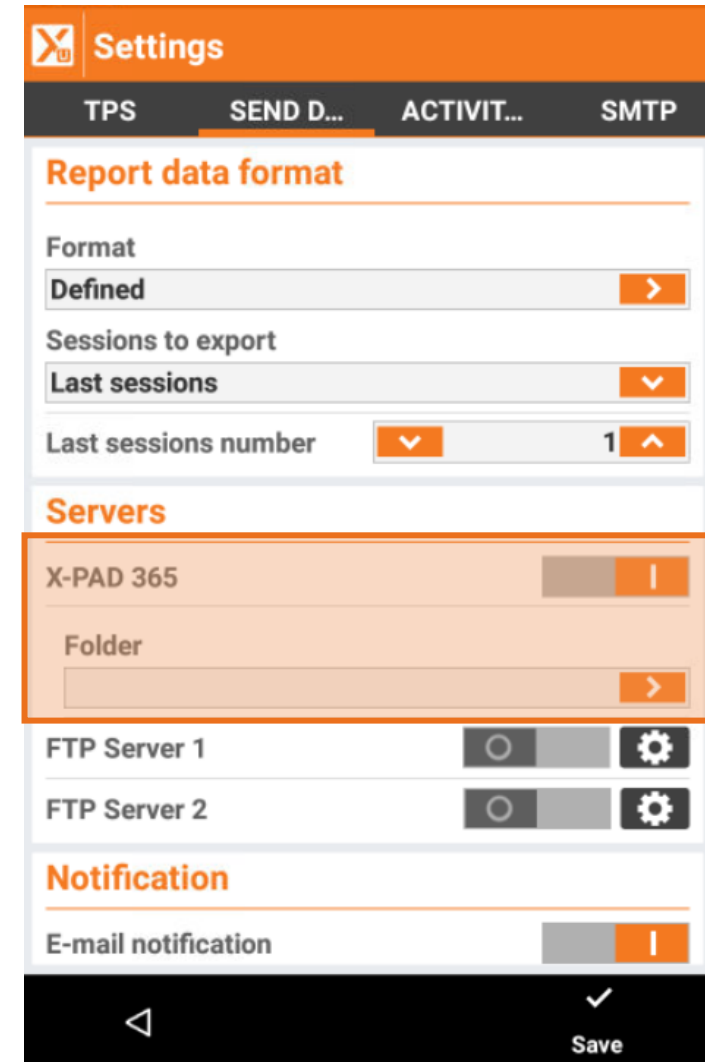


AUTOMEASURING

Upload data to X-PAD365

If an X-PAD365 PRO or ENTERPRISE account is available, it is now possible to export results from Automeasuring to X-PAD365 cloud storage

1. Open Automeasuring page
2. Click on Settings
3. Activate X-PAD365 as output server
4. Select the folder where upload the data



Settings

TPS SEND D... ACTIVIT... SMTP

Report data format

Format
Defined

Sessions to export
Last sessions

Last sessions number 1

Servers

X-PAD 365

Folder

FTP Server 1

FTP Server 2

Notification

E-mail notification

Save

