



# X-PAD Ultimate

## The Ultimate solution in the field

X-PAD Ultimate is a tailored, flexible, modular, ideal, customised software for high end topographic tasks, such as measure, stake-out, cadastral, BIM check and control, roading, mapping, bathymetry and GIS. Running on Android, it brings the best technologies to topography.

X-PAD Ultimate ensures productivity in the field and provides perfect integration between measure tools. Available in two versions, one dedicated to the professional surveyors and one dedicated to the construction company, offers to both a specific working environment and a set of dedicated features.

**“The ultimate solution  
for all those who want  
the best in the field  
without compromise.”**





# Increase productivity

X-PAD Ultimate is the most advanced field software solution for all users that are looking for a tool that grants productivity, easiness of use, scalability and full control of the data.

Running on any Android device, X-PAD Ultimate brings the best technology directly to the field and on your hand: a full 3D viewer and CAD system to view and edit the drawings, integration of your data with all map types and support of the camera for augmented reality. A direct data exchange with a cloud platform for a direct connection between field and office, the use of all sensors for a better experience in the field, voice commands to control the operations without the use of the hands are the key features that will allow you to work with high productivity.

X-PAD Ultimate allows you to have the perfect integration between the different measuring tools: TPS and GNSS allowing them to work together to offer the maximum flexibility in the field; other sensors as laser distance – meters, echosounders and locators are fully integrated in the measurement workflow as well.

X-PAD Ultimate is specifically tailored for users and has the right modules and language for surveyors and construction experts, as it is split in two modules: Survey and Build.

# Innovative Field Solution for Surveyors

## TOPOGRAPHIC 3D CAD

X-PAD Ultimate includes a real topographic 3D CAD, not just a simple graphic viewer, with specific functions to draw, edit, measure and calculate the position of new elements that can be then used in stakeout operations.

## MAPS, WMS AND OFF-LINE

X-PAD Ultimate allows you to use different types of standard maps but also Web Map Service (WMS) maps; off-line mode is also supported.

## DATA COLLECTIONS. NOT ONLY COORDINATES

Measuring the position of the points is the main purpose to use the topographic equipment, but with X-PAD Ultimate you go further because you can integrate the position, photos and notes.

Quick Codes allow you to create your own custom panels with the most used codes and measure the position of the point automatically just after you choose the code.

## SMARTDRAWING: MEASURE AND DRAWING TOGETHER

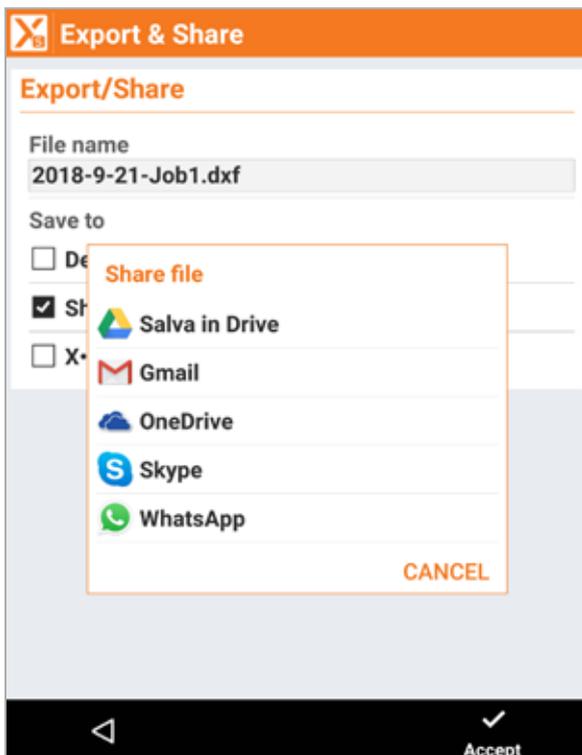
The innovative automatic design system with survey codes allows you to see the survey drawing compose point after point without requiring lengthy and complex coding.

## STAKEOUT... WITH YOUR EYES CLOSED

With X-PAD Ultimate, stakeout has never been easier or faster. Voice guidance allows you to arrive at the point without even looking at the display while the large compass simplifies visual navigation. Every drawing element, including points, lines, arcs and every position is determined within the graphical view can be staked out.



# Unbeatable field solution



## AUGMENTED REALITY. TURN ON REALITY!

Point the camera to the site and you can see immediately where the points and elements are for stakeout. X-PAD Ultimate will guide you in the vicinity of the point and then determine the exact location, but you can also use augmented reality to see what is not possible to see.

## VOICE COMMANDS

X-PAD Ultimate can be controlled by voice commands; you don't need to touch the screen to measure points, change the survey code, change target type, and for many other operations.

## GIS: RECORD ALL INFORMATION YOU WANT

The integrated GIS feature allows to create your GIS features and to define the corresponding attributes that can be filled when the point is stored.

## BIM

With BIM, IFC files can be loaded, displayed in the main CAD view and also in survey, stakeout and COGO commands. Elements can be selected, hidden or isolated. From BIM models, it is possible to extract points, lines, surfaces and cross-sections for stakeout and checking operations.

## CLOUD AND SHARING POINT. FIELD AND OFFICE, ALWAYS CONNECTED

With X-PAD Ultimate you can open and import any file, even if it is in the cloud. You can save your data on the most popular cloud platforms, like Google Drive, Microsoft OneDrive and Dropbox, and access from the field or office. If you need to, though, you can also share information and coordinates of the measured points quickly via a message or email with photo attached to those in the office waiting for the coordinates of a point.

# Uncomparable adaptability

## X-POLE: ONE POLE, TWO SYSTEMS

The X-Pole solution allows you to work simultaneously with TPS and GNSS using the best features of each system and with maximum flexibility. A simple click is all you need to change the measurement mode and switch from GNSS to TPS mode and vice versa. The GNSS system positioned above the prism, gives you a direct rotation on the prism speeding up the locking operations after loss.



## ROBOTIC TOTAL STATION. WORK IN AUTONOMY

Robotic feature allows you to have full control of the robotic total station remotely. From a practical panel, you can access all the control functions of the station. In case of loss of the prism, it is possible to choose among different search strategies. Locking status is always available on the screen, and with one click, it is possible to start the searching process even using the GPS position of the controller.

## TERRAIN SURFACES AND VOLUMES

With the Volumes features, X-PAD Ultimate can calculate terrain models from the points with the options to define breaklines and boundaries. From the models, you can go to the volume calculation to determine at a glance the cubic metres of an excavation or of a pit. You can also import models from DXF or LandXML files. Use the stakeout command to determine, in field, the design elevations.

## ROADING. THE WHOLE PROJECT IN THE CONTROLLER

The Roding feature allows you to load, manage and perform alignment stakeouts of works such as roads, highways and canals. The management is fully visual, so you always know what you're doing. At any moment, you can see plans, vertical profiles and cross sections.

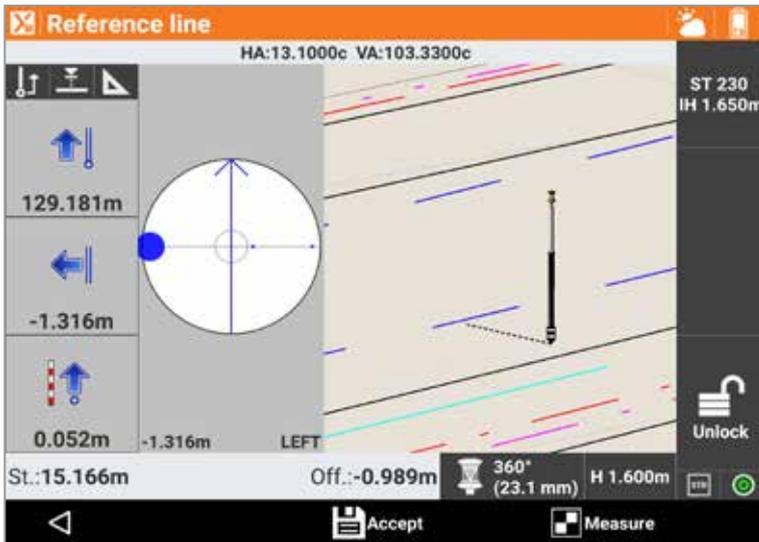
You can stake all elements of the work (axes, edges, sideslopes, walls, ditches) at any station and with any offset, using the cross sections, the edge polylines or by defining one or more sections template.

## AUTOMEASURING

Automeasuring is the simple, flexible, safe and economical solution for all you need to use the total station for automatic measurement. Just connect your total station with your Android device and get the real-time data.

# X-PAD Ultimate

## Survey



X-PAD Ultimate Survey is the best solution for professional surveyors that want accuracy, complete features, flexibility, data integration, scalability and the latest technologies in the field. With a set of different modules, X-PAD Ultimate Survey covers all the needs in the field using TPS and GNSS measure tools.

## Build



X-PAD Ultimate Build is the ideal solution for all your construction measuring and layout needs - executing all construction activities in an efficient and productive way. It combines data collection from TPS or GNSS, allowing you to perform the measurement, stakeout and as-built with simple and functional procedures. Continuous improvements and developments are made working closely with users in the field.

X-PAD Ultimate Build is a special and tailored version of X-PAD Ultimate Survey, from which inherits all the main features and functionalities, but differs because it is specifically addressed to construction companies that can solve all measuring situations onsite in an autonomous and independent way, improving productivity and reducing costs. To use X-PAD Ultimate Build you don't need to be a surveyor; all procedures are guided and can also be used by those who use this type of equipment for the first time.

# X-PAD Ultimate modules

X-PAD Ultimate is specifically tailored for users and has the right modules and language for surveyors and construction experts, as it is split in two modules: Survey and Build.

	Survey	Build
<b>GNSS</b> Main module that includes all the functionality for survey, stakeout and control with GNSS receiver.	X	X
<b>TPS</b> Main module that includes all the functionality for survey, stakeout and control with mechanical total station.	X	X
<b>Robotic</b> Extends the TPS main module with features that allow full control of motorized and robotic total stations.	X	X
<b>X-Pole</b> Allows to work simultaneously with TPS and GNSS using the best features of each system and with maximum flexibility.	X	X
<b>BIM</b> Allows to import BIM models, display, navigate and extract information (points, lines, surfaces) for checking and stakeout operations.	X	X
<b>Volumes &amp; Surfaces</b> Create and import 3D surfaces to be used for all stakeout operations; it includes functions for the calculation of the volumes according to different methods.	X	X
<b>Roading</b> Import of road design data from different formats and stakeout of any element of the alignment in various ways.	X	
<b>GIS</b> Define GIS features and attributes to be assigned to measured points. It includes import and export functions of GIS data.	X	
<b>Automeasuring TPS</b> Allows automatic measurements (for single sessions or at time intervals) of points; includes report generation and automatic sending of the results.	X	
<b>Build Extension</b> Extends Survey version with all the features that are an exclusive of Build version.	X	
<b>PicPoint</b> Captures and photo processes for the measurement of points directly on the photos themselves.	X	
<b>Bathymetry</b> Manage bathymetric surveys by acquiring depth data from echo sounder and GNSS positions. It includes a route control.	X	
<b>Locators</b> Connect to utility locators and record depths at corresponding GNSS positions.	X	