



Multi Positioning Software



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X-PAD MPS

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Multi Positioning Software

A new concept in software for processing topographical data, capable of integrating a range of different information such as: calculations, scan registration, management of point clouds and photography, plus topographical drawing functionality. Simplicity and interactivity all in one application!



X·PAD MPS consists of 4 modules: BASIC, L·SCAN, TOPO and X·CAD.

A license for the BASIC module, to download, manage and convert data, is included with every purchase of a GeoMax TPS, GPS or SPS ZOOM 300 instrument.

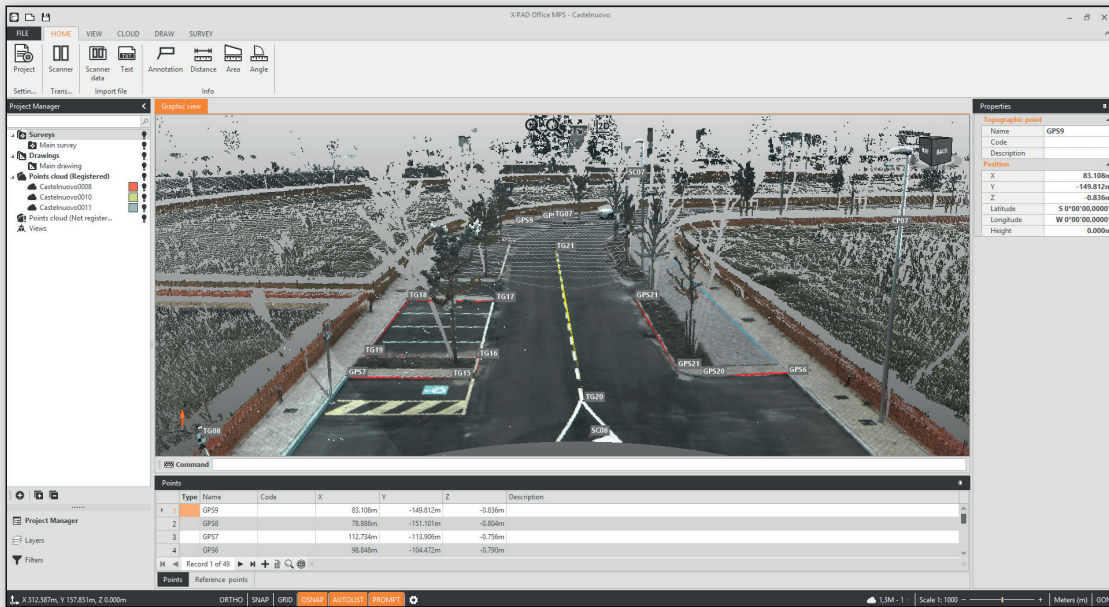
The other modules are available to buy, according to the requirements of the project.



All in one, because one is better

A single software program adds up to a more efficient workflow. With X·PAD is possible to load data from total stations, GPS and laser scanners and calculate, view and manage it without having to export the data from one program to another. You can connect a TPS or GPS survey to each laser scan and view everything together.

This is real integration!



Data organization

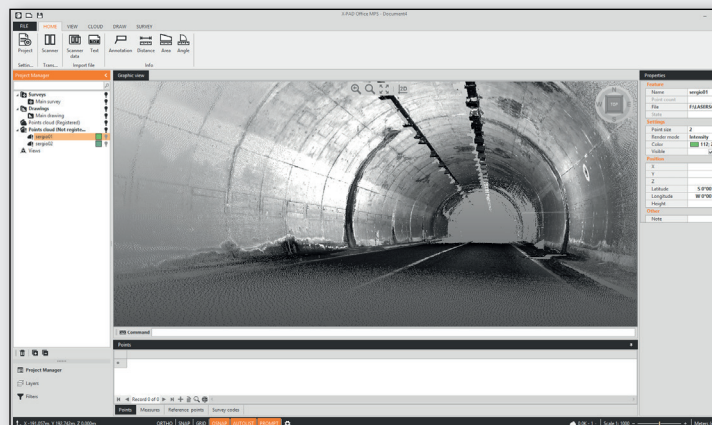
X·PAD easily handles a multitude of different types of data: measurements, coordinates, drawings, and point clouds. The Project Manager's organization of the data within the same file is orderly and logical. The management of multiple survey sessions and different groups of drawings is made easy as the relevant data can be quickly reviewed at anytime.

X·PAD's supreme functionality saves time on every task.

Data visibility

We have developed a powerful graphics engine allowing the user to work in either 2D or 3D.

You can view and manage data easily even when displayed as a spreadsheet. Functions for searching, filtering and editing make viewing and managing data straightforward.



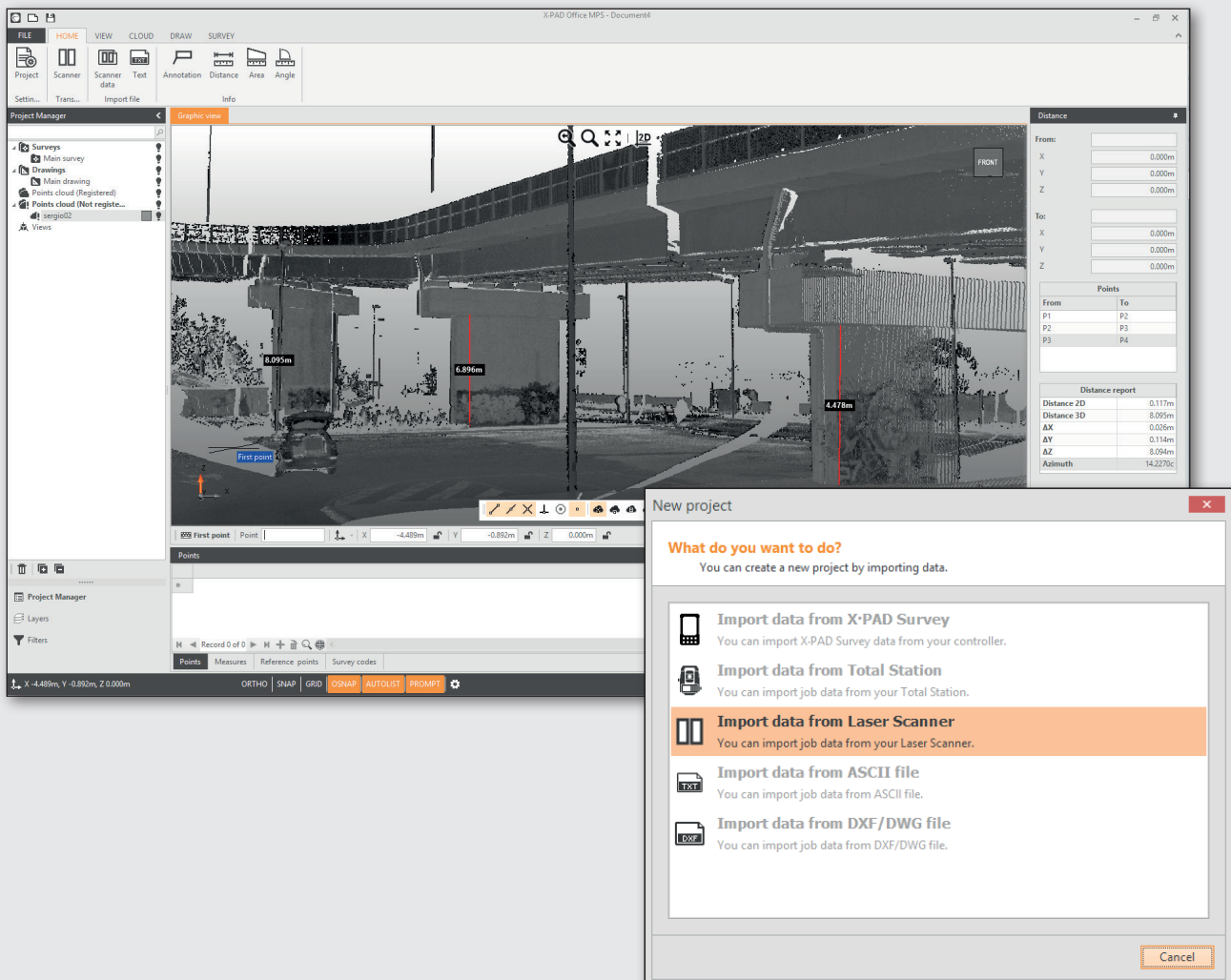
L-SCAN

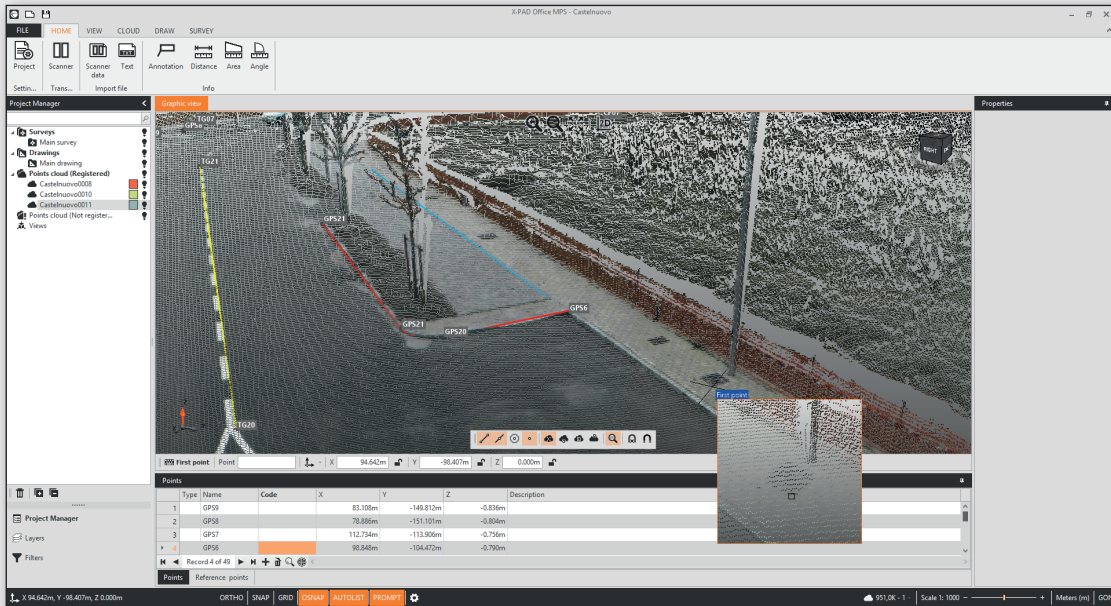
Import, Record, Done

A one step guided procedure takes the user from import to registration. Powerful registration functions make matching point clouds to topographic points quick and easy.

During registration the user is constantly guided by visual information and controls, preventing errors.

The colour of the point cloud from photos is generated automatically but there is an option to view the point cloud either by intensity or colour at any time. Even a laser scanner novice can be confident that the results are to specification.





Millions of points... and then?

Millions of points are useful but what next? The functions are similar to AutoCAD® but designed for topographical use, so that a 3D drawing can be quickly created. Powerful selection tools allow for the capture of the closest, lowest, highest, or the average point of a selected area. Smart Magnifier gives a close up view so the user can select particular points with absolute precision. Millions of points no longer seem daunting!

Images inside a bubble

Pictures have always been the best way to understand reality and data from the laser scanner is no exception. The bubble view in X-PAD allows the user to select points for drawing directly onto the images; X-PAD will calculate the correct 3D coordinates of the points.



TOPO

Measurements under control

Measurements are at the heart of the professional surveyor's workflow. Importing the measurements from your instruments to X·PAD gives the user complete control of all the information needed to verify the quality of the work at any given time. Any mistakes made in the field can be edited and the coordinates recalculated, if necessary. If photos and audio recordings have been taken in the field they can be accessed and used in the creation of the final drawings.

Points, the result of your work

X·PAD offers a way to customize the representation of the points in order to create the most useful drawing possible. The integrity of the points is always maintained even if the coordinates are recalculated or if the coordinate system has been changed.

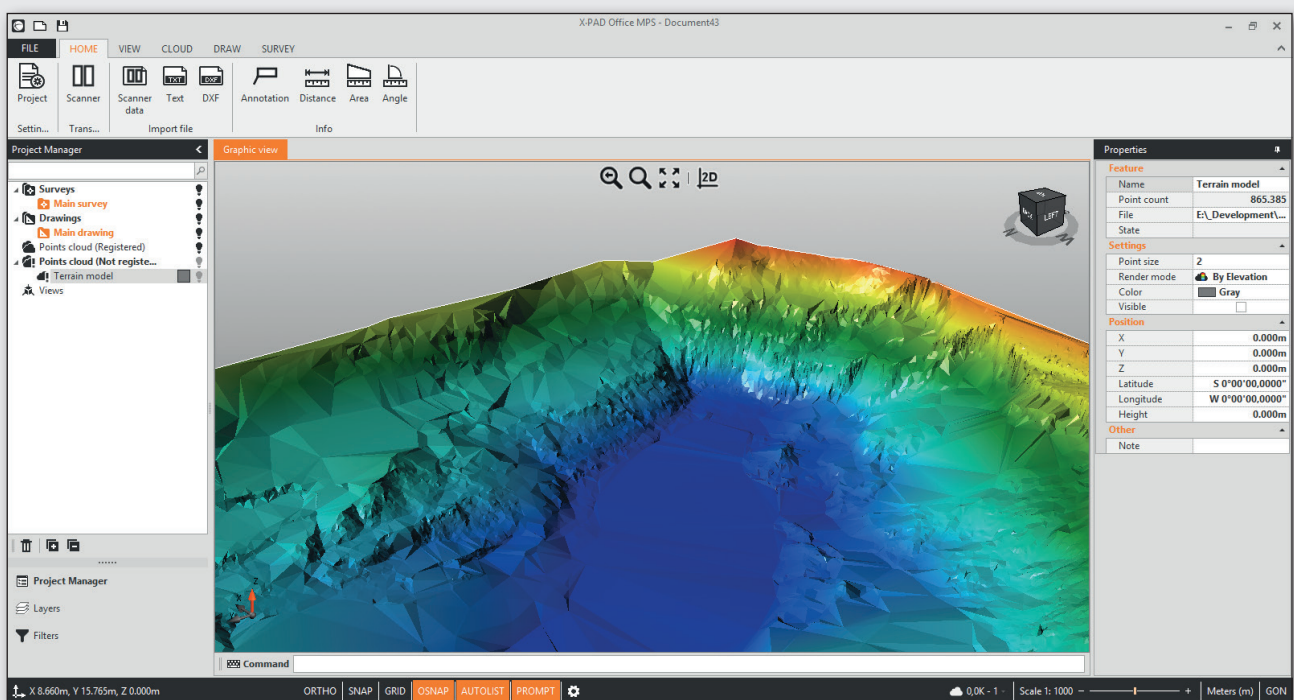
Calculations, because to calculate is X·PAD's job

X·PAD calculates and provides solutions for all types of survey: GPS, total station or a combination, using the least squares algorithms for an accurate result. X·PAD allows you to define coordinate systems, apply geoid corrections and reduce the distances to your reference level. Reliability and precision, this is what you need and this is what X·PAD gives you.

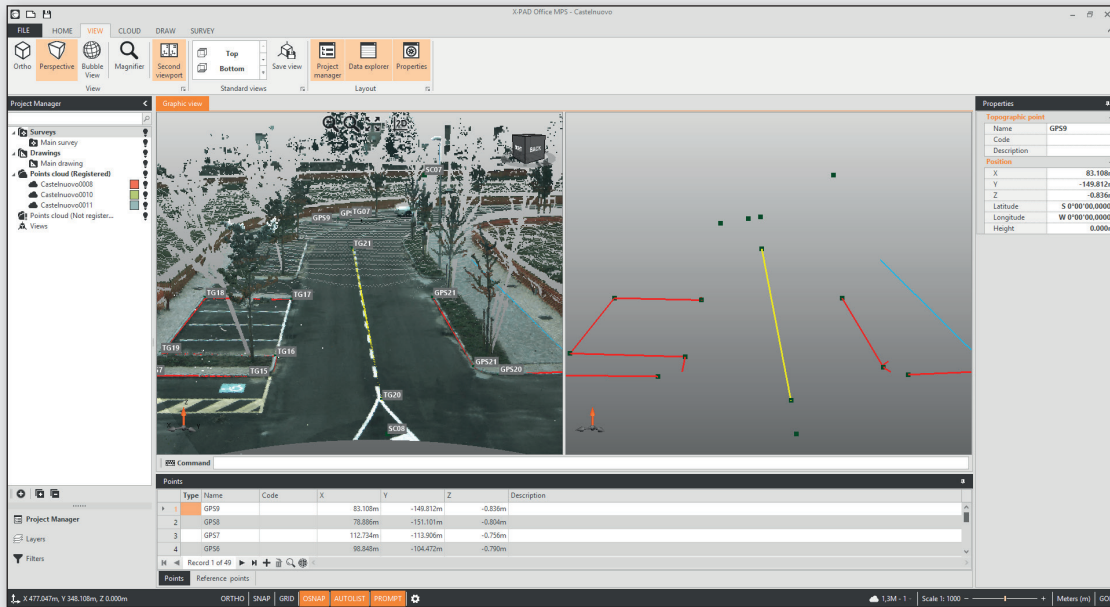
Triangles & Volumes in a click

Do you need to know the volume of an excavation or of a pile? Scan the area, transfer the data, register the point clouds and immediately you have a 3D graphic of the site and the cubic metres that you need to calculate the volume.

All in all, much faster than the conventional instruments and with the additional capability to measure inaccessible areas such as rock faces!



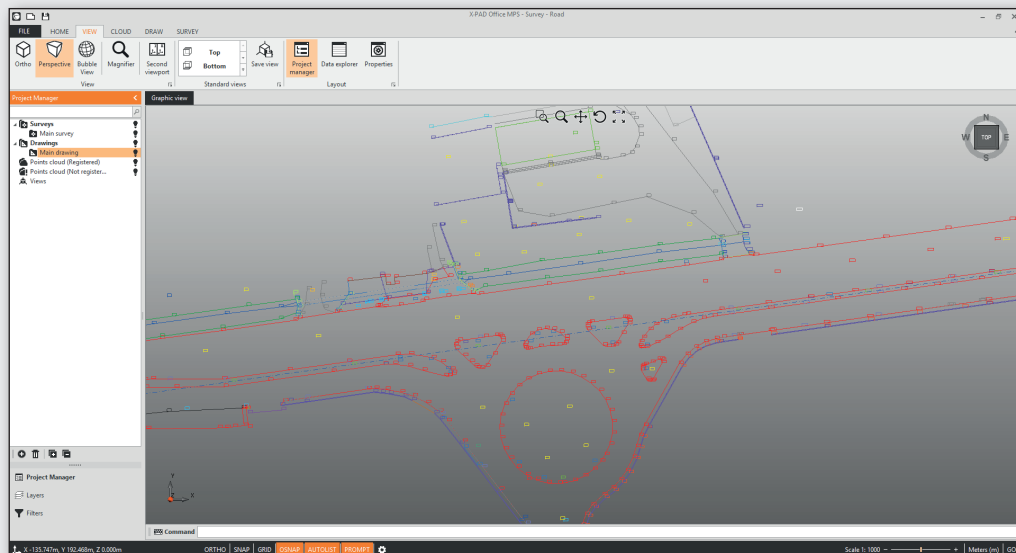
X·CAD



A topographic CAD

The X·PAD's CAD has been programmed to operate according to the standards defined by AutoCAD®, but at the same time it has been designed for topographic use, for example, when you need to display a coordinate you can type the name of the corresponding point, or you can select topographic objects (points and lines) according to the survey code.

Special surveying functions are also available to assist in the creation of your drawing.



X-PAD MPS

General	BASIC	L-SCAN	TOPO	X-CAD
Jobs management	•	•	•	•
System settings (units, precision, parameters, etc.)	•	•	•	•
Data management (drawings, surveys, points cloud)	•	•	•	•
2D/3D viewer	•	•	•	•
2D/3D advanced viewer		•	•	•
Info commands (id, distance, area, angle)	•	•	•	•
Import	BASIC	L-SCAN	TOPO	X-CAD
ZOOM 300 direct transfer through Wi-Fi	•	•	•	•
Laser scanner points cloud data formats (ASCII, PTS, PTX)	•	•	•	•
E57 data format		•		
TPS direct transfer (download)	•	•	•	•
TPS/GPS data format	•	•	•	•
X-PAD Survey and XPAD Construction	•	•	•	•
Customizable ASCII import	•	•	•	•
Autodesk DXF	•	•	•	•
Autodesk DWG, LandXML, Esri Shape				•
Points Cloud	BASIC	L-SCAN	TOPO	X-CAD
Render mode (Color, Intensity, True colors)	•	•	•	•
Point size	•	•	•	•
Coloured scan		•		
Bubble view		•		
Manual registration on common points		•		
Manual registration with known points		•		
Automatic registration		•		
Point selection tools (Nearest, Lowest, Highest, Average)		•		
Point selection with Smart Magnifier		•		
Filters to reduce and clean point cloud		•		
Editing tools, Cut planes Prospects, Cross-sections		•		



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Topography	BASIC	L-SCAN	TOPO	X-CAD
Management of topographic points (Simple)	•	•	•	•
Management of topographic points (Advanced)			•	
Management of TPS & GPS measures (Simple)	•	•	•	•
Management of TPS & GPS measures (Advanced)			•	
Management of Survey codes (Simple)	•	•	•	•
Management of Survey codes (Advanced)			•	
Cartographic coordinate systems, Geoid corrections			•	
GPS localization systems			•	
Calculation of coordinates from measures (Simple)	•	•	•	•
Calculation of coordinates from measures (Advanced)			•	
Traverse adjustment, Topographic utilities			•	
Calculation reports			•	
Terrain 3D surfaces from points and points cloud			•	
Volume calculation from 3D surfaces			•	
CAD	BASIC	L-SCAN	TOPO	X-CAD
Layer management				•
Snap to object				•
Drawing aids (ortho, grid, snap)				•
Drawing commands (line, polyline, arc, circle, text)				•
Annotation commands (linear, aligned, angular, radius, diameter)				•
Editing command (move, copy, rotate, trim, extend, offset)				•
Select by survey code				•
Export	BASIC	L-SCAN	TOPO	X-CAD
Laser scanner points cloud formats (ASCII, PTS, PTX)	•	•	•	•
E57 data format		•		
TPS direct transfer (upload)	•	•	•	•
TPS/GPS data format	•	•	•	•
X-PAD Survey and XPAD Construction	•	•	•	•
Customizable ASCII export	•	•	•	•
Autodesk DXF	•	•	•	•
Autodesk DWG, LandXML, Esri Shape, Google Earth KML				•