



Features		Advantages	
INPUTS ↗	Point clouds ↗		Import point clouds created with photogrammetry, laser scanners, LiDAR or other third-party tool in .las or .laz format
	PIX4Dmapper project ↗		Seamless import of processed PIX4Dmapper projects (.p4d). Start the vectorization using original images and point cloud. Possible to skip .las creation to speed up processing
	PIX4Dmatic project ↗		Seamless import of processed PIX4Dmatic projects (.p4m). Start the vectorization using original images and original point cloud. Depth and fused point clouds imported in the case of PIX4Dcatch project processed in PIX4Dmatic
	PIX4Dcloud project		Seamless import of processed and downloaded PIX4Dcloud projects (.p4d). Start the vectorization using original images and generated point cloud
	DXF file ↗		Import 2D or 3D layers from CAD or GIS to add context, bring in existing work, and understand your project better
	Arbitrary coordinate system support ↗		Import projects from PIX4Dmapper or PIX4Dmatic in arbitrary coordinate systems
	Import GIS files		Import 2D or 3D GeoJSON or Shapefile layers from CAD or GIS to add context, bring in existing work, and understand your project better
	Convert on import ↗		Convert the coordinate system of any import into the project coordinate reference system
	Import text files as markers		Import text files with or without headers, convert the coordinate system on import, and define correct column contents

TOOLS AND FUNCTIONS

Easy to use interface		An intuitive interface with a short learning curve for a fast integration into existing workflows
Layers		Manage the vectorized data in layers. Easily move objects between layers. Layers can be sorted by creation date, alphabetically, or number of objects
Properties		See properties and measurements of any object
Shortcuts 		Integrated shortcuts for faster navigation and vectorization
Project visualization		Display vectorized geometry and point clouds in the same context
Split view		See your project from multiple angles at once, vectorize seamlessly between views
Orthographic view 		See your project with no distortion - facades are vertical, wires are straight, and you have a similar experience to looking at an orthomosaic
Point cloud display		Fast and lightweight point cloud display optimized for large projects
Camera display		Display the calibrated position of original images in the 3D view
Vector objects have adjustable transparency		Set the visibility of objects to fit the needs of your team
Vectors objects display in original images		Vectorized objects appear in both 3D and in the original images
Section 		Draw a section line and see it in a separate window in section view. Work seamlessly between the two views
Perpendicular section 		View a perpendicular section based on a polyline, and step along it to vectorize or clean up your projects
Binary terrain 		A set of tools to separate terrain and non-terrain point cloud points, and display the result
Grid of points 		An evenly spaced grid of points, that are representative of elevation and can be exported
Smart grid of points 		A set of points representing locations of elevation change in the project, similar to what would be collected in the field, including a low pass option to best take ground values in areas with dense, low vegetation
Low pass 		A set of point in a grid of cells where the user can define vertically where in the cell the selected point should be
Triangular Irregular Network 		Create a TIN using any combination of terrain layers and grid of points, low pass, smart grid or regular grid.
TIN with smart edges 		Create a TIN using any combination of terrain layers and grid of points, low pass, smart grid or regular grid, and restrict the edges of the TIN to the edges of the point cloud
Contours 		Create contour lines from the TIN, with the option to remove short loops. Major and minor lines created and display by default
Outlier removal 		Removes distant, isolated points from the project
Project backup and recovery		If your project or computer crashes, PIX4Dsurvey will save a backup and allow you to restore when reopening
Change project coordinate system		Retag the coordinate system of a project without changing the values. This allows you to assign a coordinate system to a project that may have been assigned to an arbitrary coordinate system in PIX4Dmapper when the correct geoid wasn't available
ASPRS Classes 		PIX4Dsurvey will read your classes from PIX4Dmapper or scan projects. From there, you can edit classes membership, export per class, delete, or show/hide each class
Color select 		Pick a point in the point cloud, and search in a defined radius around it for points of a similar color
Vectorize starting from images 		Place a point in two or more images, and you'll create a marker that is projected into 3D thanks to the rayCloud. Perfect for small objects that don't show up well in the point cloud
Custom classes 		Create custom point classes to describe your project as precisely as needed
Combine photogrammetry projects 		Bring multiple PIX4Dmatic and/or PIX4Dmapper projects together inside PIX4Dsurvey, even if in different coordinate systems. Work seamlessly between all the point clouds and sets of images in the projects
Display by elevation 		Use a histogram and a selection of spectrums to interactively display your point clouds by elevation value
Videos & views		Create views of your project to easily access the same view point again, to document your scene in a custom report or to create a video animation of your project
Manual registration		Select reference points to manually align two point clouds
Road point cloud classification 		Quickly classify roadway point cloud points in a project, adapt using color threshold
Drape polyline to point cloud 		Fit a polyline to the point cloud, then automatically simplify to get the right level of detail
Layer templates		Quickly import predefined layers, saving the effort of recreating them each time

VECTORIZATION

Create markers	☞	Quickly vectorize individual objects, for example manholes, poles or trees to mark and inspect
Create polylines	☞	Ideal for vectorizing linear objects, for example roads, curbs, fences and breaklines
Create polygons	☞	Ideal for vectorizing polygons, for example building footprints and roofs
Create catenary curves	☞	For optimal vectorization of freely hanging power lines
Create circles	☞	Quickly vectorize circular objects on a horizontal plane
Mark layers as Terrain Layers	☞	Layer contents can be used as breaklines for TIN creation. Lines and polygons = breaklines, markers = intersections in the TIN
Road mark following	☞	Automatically follow road marking in a project, just define the starting point and direction to follow solid or dashed paint on a roadway
Join or continue existing lines	☞	Use lines you have to more precisely show the content of your project
Snap	☞	When vectorizing or editing near other objects, snap to reuse a vertex you have already placed and refined
Create a volume	☞	Create and measure the volume of anything, even against a wall or in a corner
Volume report	☞	Export a graphical report in HTML or PDF for each project, by layer and volume, with screenshots and labels
Stockpile detection	☞	Click to automatically select the base of your stockpile, adjusting the radius and slope as needed
Object detection	☞	Find manholes, drains and poles based on images throughout your project
Set a common elevation value	☞	For lines, polygons or volumes, set the elevation of the entire object to the Max, Min, or average elevation, or to any Z value
Display slope value in polyline properties	☞	Polyline properties show slope in degrees or percentages in the properties
Offset	☞	Offset a polyline or polygon horizontally and/or vertically, especially for linear projects
Roof detection	☞	Guided tool to detect all the faces of a roof, with slope and azimuth attributes for each face
Wall detection	☞	Guided tool to detect walls from any point cloud

EDITING

Editing in 3D	☞	Edit the position of the point by simply dragging it to the desired position in 3D
Editing in 2D	☞	Take advantage of original images to precisely place points
Vertex editor	☞	Enter the desired coordinates of points manually or copy-paste a known position
Edit the grid of points	☞	Select members of a grid of point and delete. Allows for quick refinement of the TIN
Multiselect	☞	Select exactly what you need via polygon, rectangle or single selections in the project and act on it.
Selection refinement	☞	edit your selection set interactively with keyboard shortcuts or onscreen by adding and removing to get exactly the right contents
Configurable inputs	☞	Pick just the right inputs to the terrain filter, grid of points, or smart grid to get the right results everytime
Manage projects	☞	Now that you can combine projects, show just the point cloud and images that you need
Display units	☞	Measure and see coordinates in the units you are accustomed to, even if the coordinate system uses a different unit system

OUTPUTS ↗	Vector layers		Export all or a single layer to a .dxf, .shp, GeoJSON or a zipped .shp file. Export markers or grids to .csv
	TIN		Export in LandXML format, CAD software will recognize as a surface, or export to GeoTIF for GIS or visualization
	.LAZ and .LAS (1.2 and 1.4)		Export point clouds, terrain classes, ASPRS classes or grid of points to LAS (1.2 and 1.4) or LAZ. Also allows merging all point clouds in the project on export
	Volume		Export the volume itself as LandXML, export the base in the same formats as vector files
	File names		File names can have a suffix or timestamp appended for better file management
	Share to PIX4Dcloud ↗		Upload results from PIX4Dsurvey to PIX4Dcloud for sharing and collaboration
	Video (.webm)		Export a video of your project and add your logo to share on social media or with stakeholders

LANGUAGE	Language option		English, Japanese, Spanish, French, Simplified Chinese, Traditional Chinese, Korean, German, Portuguese, Turkish, Czech
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LICENSING OPTIONS	Organizational license support ↗		If you are in a Pix4D organization, you can access those organizational licenses and see how many are available
	SSO support ↗		SSO-enrolled companies can use their defined SSO provider to log in
	Offline license ↗		Fully offline licensing available
	Proxy configuration		The usage of proxys is supported for system or manual proxy configurations

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HARDWARE SPECS [↗](#)



CPU: Quad-core or hexa-core Intel i7/ i9/ Xeon, AMD Threadripper



HD: SSD recommended



Min recommended RAM: 16GB



GPU: GeForce GTX GPU compatible with at least OpenGL 4.1



OS: Windows 10, 11 (64 bit) or macOS Ventura and Monterey



OS not supported: macOS catalina