PIX4Dsurvey 1.35

FEATURE LIST

	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 orignal images		Vectorized objects appear in both 3D and in the original images.
	Section and profile		Draw a section line and see it in a separate window in profile. Work seamlessly between the two views.
	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 historgram and a selection of spectrums to interactively display your point clouds by elevation value.
	Bookmarks		Return to important parts of your project for reference or to continue working.
	Automatic registration		Select a reference and a file to adjust and automatically register (fit) the two together. Can be photogrammetry projects or independent point clouds.
	Road point cloud classification		Quickly classify roadway point cloud points in a project, adapt using color threshold.
	Extract curbs semi-automatically from images		In photogrammetry projects, extract curbs based on a starting point and direction from the images.

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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 and drains 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 properites show slope in degrees or percentages in the properties.
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 intactively with keyboard shortcuts or oncreen 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.
3D OUTPUT	**Vector layers**		Export all or a single layer to a .dfx, .shp, GeoJSON or a zipped .shp file. Export markers to .csv
	TIN		Export in LandXML format, CAD software will recognize as a surface.
	LAS/LAZ		Export point clouds, terrain classes, ASPRS classes or grid of points to LAS or LAZ version 1.4. 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.
LANGUAGE	**Language option**		English, Japanese, Spanish, Simplified Chinese, French, Korean

HARDWARE SPECS

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

GPU: GeForce GTX GPU compatible with at least OpenGL 4.1

HD: SSD recommended

OS: Windows 10 or 11, Mac Big Sur or Monterey

Min recommended RAM: 16GB

OS not supported: macOS catalina

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