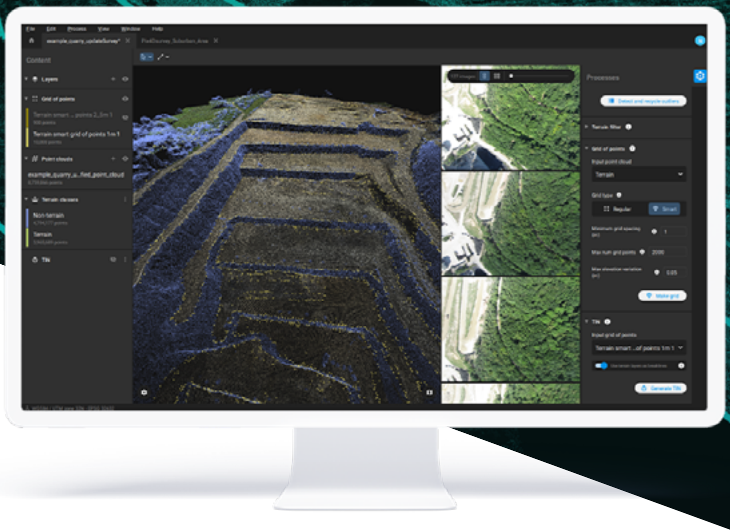
PIX4D**survey**



Bridge the gap between photogrammetry and CAD

Extract only the most relevant information to speed up and simplify your surveying workflows

Vectorize anything

Use the combined power of images and point clouds to extract key elements from photogrammetry, laser scanning or LiDAR data. Survey curbs, building footprints, walls, catenary curves and more.

Flexible & scalable

Work with small to very large projects. More than one photogrammetry or laser scanning file can be worked on at once, easily.

CAD ready

Include layers and properties for a smooth transition to CAD or GIS and reduce file size when exporting your projects as vector files.

Access the original images and 3D point clouds simultaneously and survey even complex objects such as catenaries

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	Features		Advantages
INPUTS	**PIX4Dmapper & PIX4Dmatic projects**	🖥	Seamless import of processed PIX4Dmapper (.p4d) & PIX4Dmatic projects (p4s). Start the vectorization using original images and generated point cloud
	Point clouds	🖥	Import point clouds created with photogrammetry, laser scanners, LiDAR or other third-party tool in .las or.laz format
	DXF file	🖥	Import 2D or 3D layers from CAD or GIS to add context, bring in existing work, and understand your project better
TOOLS AND FUNCTIONS	**Easy to use interface**	🖥	An intuitive interface with a short learning curve for a fast integration into existing workflows
	Orthometric view	🖥	See your project with no distortion - facades are vertical, wires are straight
	Terrain filter	🖥	Automatic point classification to terrain/non-terrain points
	Grid of points	🖥	Advantages: 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
	Layers	🖥	Manage the vectorized data in layers. Easily move objects between layers
	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
	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
	Vectors objects display in orignal images	🖥	Vectorized objects appear in both 3D and in the original images
	Triangular Irregular Network	🖥	Creation of a TIN using terrain layers and grid of points
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
	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.
	Snap	🖥	When vectorizing or editing near other objects, snap to reuse a vertex you have already placed and refined
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
3D OUTPUT	**Vector layers**	🖥	Export all or a single layer to .dfx or .shp file formats
	TIN	🖥	Export in LandXML format
	LAS/LAZ	🖥	Export point clouds, terrain classes, or grid of points to LAS or LAZ version 1.4. Also allows merging all point clouds in the project on export

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, 64 bits or macOS Mojave

RAM: 32GB

Try for free at **pix4d.com/survey**

PIX4D**survey** 1.18

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 generated .las/.laz point cloud
	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 project 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.
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
	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
	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, simlar to what would be collected in the field
	Triangular Irregular Network	🖥	Create a TIN using terrain layers and grid of points or smart grid
	Outlier removal	🖥	Removes distant points with few neighbors 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, 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.

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Get in touch:
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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
	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.
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.
3D OUTPUT	Vector layers	🖥	Export all or a single layer to a .dfx, .shp, GeoJSON or a zipped .shp file
	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.
LANGUAGE	Language option	🖥	English, Japanese, Spanish

HARDWARE SPECS

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

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