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| INPUTS     | <a href="#">Aerial and terrestrial images in .jpg, .jpeg, .tiff formats</a> | ☑ Process any RGB images that support basic EXIF/XMP tags.   |
|            | <a href="#">LiDAR and RGB images from PIX4Dcatch</a>                        | ☑ Process both LiDAR and RGB images outputs from PIX4Dcatch for a full terrestrial workflow.   |
|            | <a href="#">Multi-camera support in the same project</a>                    | ☑ Create a project using images from different cameras and process them together.  |
|            | <a href="#">Import image geolocations and orientations as .csv or .txt</a>  | ☑ Text file import (.csv/.txt) for image geolocation and orientation.  |
|            | <a href="#">Ground Control Points (GCPs)</a>                                | ☑ Import and mark ground control points to improve the absolute accuracy of the project.   |
|            | <a href="#">GCPs marks</a>  | ☑ Import of GCP marks from PIX4Dmapper into PIX4Dmatic.  |
|            | <a href="#">Known reference coordinate system support</a>                   | ☑ Select EPSG or ESRI codes from known coordinate systems libraries.   |
|            | <a href="#">Geoid support</a>   | ☑ Support of most commonly used geoid models.  |
|            | <a href="#">Arbitrary coordinate reference system support</a>               | ☑ Georeferencing of the project with GCPs in local or site specific coordinate systems.  |
|            | <a href="#">Site localization</a>   | ☑ Import a .wkt created with PIX4Dcatch, or a .prj file and set your custom coordinate system.   |
|            | <a href="#">Region of interest (ROI)</a>                                    | ☑ Define a Region of interest to delimit an area in order to reduce the extent of outputs generated for a project, speed up the processing, or even create sharper outputs.  |
| PROCESSING | <a href="#">Multicore CPU + GPU support</a>                                 | ☑ Increase the processing speed by leveraging the power of CPU cores and threads, as well as GPUs.   |
|            | <a href="#">Backup mechanism</a>  | ☑ An automatic backup mechanism ensures that you do not lose your work when something unexpected stops PIX4Dmatic.   |
|            | <a href="#">Calibration</a>   | ☑ Define the <i>Template</i> , <i>Pipeline</i> , <i>Image Scale</i> , <i>Keypoints</i> and <i>Internals confidence</i> parameters for the optimization of internal camera parameters (e.g. focal length, principal point of autocollimation and lens distortions) and external camera parameters (position, orientation) during calibration. |
|            | <a href="#">Reoptimize</a>  | ☑ Reoptimize internal and external camera parameters based on GCPs or MTPs to improve the reconstruction.  |
|            | <a href="#">AutoGCP</a>   | ☑ Automatic detection of control targets of known shape for faster marking experience.   |
|            | <a href="#">Auto-mark</a>   | ☑ For nadir projects, once at least 2 marks were added for a tie point, find more marks of the same point.   |
|            | <a href="#">Intersection Tie Points (ITPs)</a>                              | ☑ Generate intersection tie points as part of the calibration for improved calibration e.g. for indoor scenes.   |
|            | <a href="#">Depth point cloud</a>   | ☑ Create a depth point cloud based on LiDAR inputs from PIX4Dcatch.  |
|            | <a href="#">Point cloud densification</a>                                   | ☑ Define the point cloud Density, Number of Matches, Image Scale, Noise filter and Sky filter parameters to create a dense point cloud based on the sparse point cloud created during calibration.   |
|            | <a href="#">Depth &amp; dense fusion</a>                                    | ☑ Create a single point cloud based on the depth point cloud and the dense point cloud.  |
|            | <a href="#">Planes</a>  | ☑ Generate planes automatically for improving the mesh of your model.  |
|            | <a href="#">Mesh</a>  | ☑ Define the mesh Input, Template, Texture size, Deghosting, Decimation and Sky mask parameters to create a 3D Textured Mesh.  |
|            | <a href="#">Digital Surface Model</a>                                       | ☑ Define the Resolution cm/px, enable Surface smoothing with its Median filter radius (px) and enable Interpolation for the digital surface model creation.  |
|            | <a href="#">Orthomosaic</a>   | ☑ Create an orthomosaic based on the digital surface model and the images and set Deghosting or Oblique parameters.  |
|            | <a href="#">Quality report</a>  | ☑ Assess the quality of the reconstruction between processing steps with the quality report.   |
|            | <a href="#">Processing templates</a>  | ☑ Select the Nadir, Oblique, PIX4Dcatch or Custom processing template.   |

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| RAYCLOUD | Project visualization                          |  | Visually assess the quality of optimized camera positions, automatic tie points, dense point cloud, mesh, digital surface model and orthomosaic. In Perspective or Orthographic views. |
|          | GCPs   |  | Annotate GCPs with the highest accuracy, using both original images and 3D information at the same time.   |
|          | Checkpoints                                    |  | Annotate Checkpoints with the highest accuracy, using both original images and 3D information at the same time to verify the absolute accuracy of the project.                         |
|          | <a href="#">Manual Tie Points (MTPs)</a>       |  | Create and mark manual tie points to improve the calibration of your project.  |
|          | <a href="#">Intersection Tie Points (ITPs)</a> |  | Create and mark manual ITPs or edit and delete automatic ITPs to improve the calibration of your project.  |
|          | Undo/Redo your changes                         |  | Undo/Redo actions.   |
|          | <a href="#">History</a>                        |  | All actions of a given session are available in the history panel. Revert to the project at any stage, while keeping the other steps that were done as items in the history.           |
|          | <a href="#">Status center</a>                  |  | More detailed information about what happens when processing and working in the software.  |
|          | Distance measurement                           |  | Measure a distance in the scene.   |
|          | Polygon  |  | Create polygons or edit and automatically generated planes to improve the mesh of your project.  |
|          | Base maps                                      |  | Get context about your scene by displaying map or satellite data in the background of your scene in the 2D viewer.   |

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| EXPORT | <a href="#">Point cloud (.las, .laz)</a>                    |    | Export generated point clouds in .laz and .las file format.  |
|        | <a href="#">Mesh (.obj, Cesium 3D tiles, .slpk)</a>         |    | Export a 3D textured mesh in .obj, Cesium 3D tiles (.b3dm, .json) and .slpk file format.   |
|        | <a href="#">Point cloud from Mesh (.laz)</a>                |    | Export a point cloud from your mesh for better modeling in Revit.  |
|        | <a href="#">Digital Surface Model (.tiff, .tfw, .prj)</a>   |    | Export generated digital surface model in a single .tiff or in tiles. Optionally with .tfw and .prj files. Select the compression rate of the file. LZW compression available.                                       |
|        | <a href="#">Orthomosaic (.tiff, .tfw, .prj, .jpg, .jgw)</a> |    | Export generated orthomosaic in a single or tiled .tiff with optional .tfw and .prj files, or as .jpg with a .jgw file for geolocation. Select the compression rate of the file. LZW compression available.          |
|        | <a href="#">Quality report</a>                              |    | Export the quality report to assess the accuracy and quality of projects.  |
|        | Direct export to PIX4Dsurvey                                |   | Seamless export of processed PIX4Dmatic projects (.p4m) into PIX4Dsurvey. Together with Pix4D's proprietary .bpc file format, this leads to optimized loading and manipulation of large point clouds in PIX4Dsurvey. |
|        | <a href="#">Share to PIX4Dcloud</a>                         |  | Upload results from PIX4Dmatic to PIX4Dcloud for sharing and collaboration.  |

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| LANGUAGE | <a href="#">Language option</a> |  | English, Japanese, Spanish, French, Simplified Chinese, Traditional Chinese, Korean, German |
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#### HARDWARE SPECS



**CPU:** Quad-core or hexa-core Intel i5



**GPU:** Any NVIDIA GPU that supports OpenGL 4.1 or higher



**Disk Space:** 150 GB Free Space (2000-5000 images at 20MP). 350 GB Free Space (5000-10000 images at 20MP)



**RAM:** 32GB (2000-5000 images at 20MP). 64GB (5000-10000 images at 20MP)



**OS:** Windows 10, 11 (64 bit) or macOS Monterey and Big Sur