PIX4Dinspect

FEATURE LIST

Features		Advantages
INPUTS		
Aerial images (nadir and oblique)	☁	Geolocated JPEG images from the most popular drone manufacturers' cameras providing the recommended XMP tags (position and orientation)
Video (Parrot Anafi only)	☁	Automatically extracts still frames from videos (.mp4) to create a project
PHOTO-GRAMMETRIC DATA PROCESSING		
Asset-specific processing optimization	☁	Obtain the best quality output for a class of asset (for example, cell phone tower)
Camera self-calibration	☁	Optimize internal camera parameters, such as focal length, principle point of autocollimation and lens distortions
Automatic Aerial Triangulation (AAT) and Bundle Block Adjustment (BBA)	☁	Process automatically with or without known camera exterior orientations (x, y, z, w, f, k)
Automatic point cloud densification	☁	Produce a dense and detailed 3D point cloud, which can be used as a basis for DSM and 3D mesh
Automatic point cloud filtering and smoothing	☁	Use presets for point cloud filtering and smoothing options
Automatic brightness and color correction	☁	Compensate automatically for change of brightness, luminosity and color balancing of images
PHOTO-GRAMMETRIC OUTPUT FILES		
2D outputs	☁	Orthomosaic
	☁	DSM
	☁	High-resolution images
3D outputs	☁	Point cloud
	☁	3D mesh
ASSET MANAGEMENT		
Geolocation of assets in a map dashboard	☁	Intuitive file organization for smoother workflows
Unlimited asset creation	☁	Create as many assets as needed
Share assets with collaborators	☁	Align stakeholders with secure information sharing
Map filtering	☁	Filter assets by zooming in or out of the map
Cloud data storage	☁	Store information securely and access from anywhere in the world
Selectable data processing and storage location	☁	Select data processing and storage location Use secure servers located in the US, Germany, Japan or Korea

INSPECTION TOOLS			
2D and 3D data visualization	☁	Visualize 2D maps and 3D models using any web browser Mesh and point cloud visualization options Real-time shading for digital surface model (DSM) visualization
Distance measurements map/3D	☁	Measure distances using either the map or 3D view
Area measurements map/3D	☁	Measure areas using either the map or 3D view
Volume measurements map/3D	☁	Measure volumes using either the map or 3D view
Geolocalized image position representation	☁	Location and camera orientation information is linked to each image to give additional context when navigating the asset
Support for non-drone images	☁	Include images taken with a cellphone, tablet or other camera as well as those taken by drone
Image navigation capabilities	☁	Select an image from either the 2D or 3D view, the carousel or image list. Toggle between images in the same order in which they were taken for easier inspection
Image filtering capabilities	☁	Reduce the number of images to a sub-set for a streamlined visual inspection
Image recommendation capabilities	☁	Click in any location in 2D or 3D and get a recommended image containing the selected point
Master cameras	☁	Reduce the number of images to inspect by displaying the minimum amount necessary to fully cover the digital twin.
Camera navigation in sync between 2D and 3D	☁	Navigate seamlessly between the 2D and 3D views
3D screenshot	☁	Take screenshots in the 3D view
Image annotation by severity level	☁	Rank images in order of severity. Images can be annotated as soon as they are uploaded, without waiting for photogrammetric processing to complete
Image reviewed mark	☁	Mark images as reviewed to give an overview of the asset
Export inspection report in JSON and .PDF	☁	The PDF report can include the customer's logo
Automated report	☁	Export a report containing all the annotations, antennas, and measurements
Elevation profiles	☁	Automatically calculate the elevation of a section of your project
Units	☁	Metric and Imperial
Image annotations with type, severity level, 3D location,a nd external link	☁	The 3D location of an annotated image is provided as an output. A marker is placed in the 2D/3D for visual awareness of the annotation within the asset. Link anything from the web or in shared drives.

ADVANCED ANALYTICS (TELECOM)			
Automatic detection of panel and microwave antennas pose	☁	Automatically calculate azimuth, downtilt, plumb and height from ground and dimensions
Panel antenna inventory	☁	Including antenna properties and key pictures
Microwave antenna inventory	☁	Including antenna properties and key pictures
Ancillary boxes inventory	☁	Including properties and key pictures
3D visualization of identified panel and microwave antennas	☁	View the asset in 3D
Point cloud clipping	☁	Trim the point cloud to include only the most essential data
On-demand custom algorithm development and integration	☁	Contact us to discuss developing or integrating custom algorithms to meet your specific needs
Custom software integrations with 3rd party apps	☁	Contact us to discuss how Pix4Dinspect outputs can be automatically pushed in your 3rd party software

MULTILINGUAL			
Language options	☁	English, Japanese, French, Italian and Spanish

PIX4D