



# Presenting Pix4D's New Professional Products

Webinar April 8th, 2020



Pix4D**matic**



Pix4D**survey**



Pix4D**scan**



Pix4D**inspect**



Pix4D**react**



Pix4D**fields**

# Agenda

1. Pix4Dmatic
2. Pix4Dsurvey
3. Pix4Dscan & Pix4Dinspect
4. Pix4Dreact
5. Pix4Dfields
6. Pix4D Training



Pix4D**matic**

## Photogrammetry at a large scale

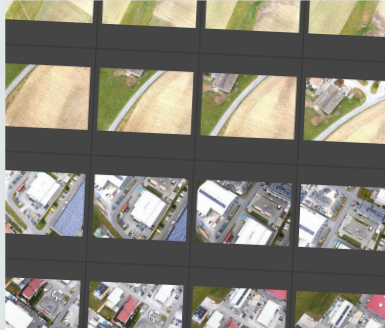
Amritha Narayanan  
Product Owner



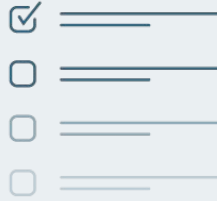


Drone-based photogrammetry has  
entered the large mapping space





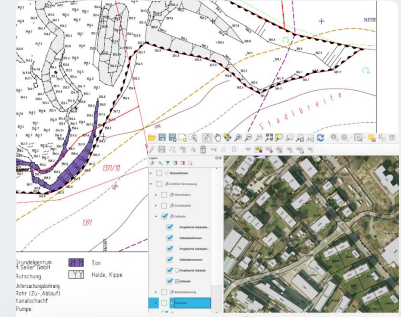
Acquire large dataset with  
more than 5000 images



I'm frustrated that I  
cannot process in one go



I'm trying to make my  
exports manageable



CAD/GIS



# Challenges faced with large data mapping today

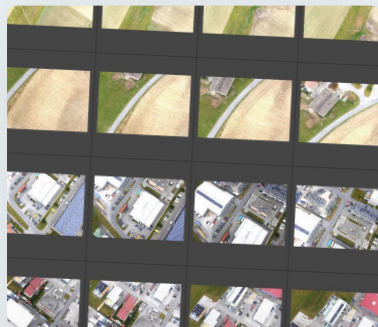
- Cumbersome workflows to manage the large data
- Trade-off with accuracy
- High uncertainty on the success of a project
- Time lost in waiting
- Making exports manageable

# Pix4Dmatic's highlights

- Optimised for datasets with more than 5000 images without compromising on the accuracy
- Integrated workflow with Pix4Dsurvey: Convert your large dense point cloud to manageable vectors for your CAD deliverables



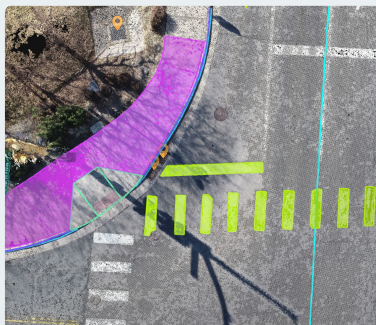
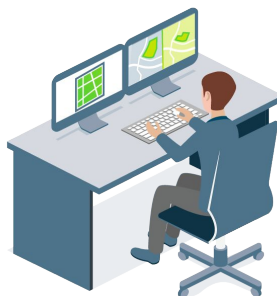




Acquire large dataset with  
more than 5000 images

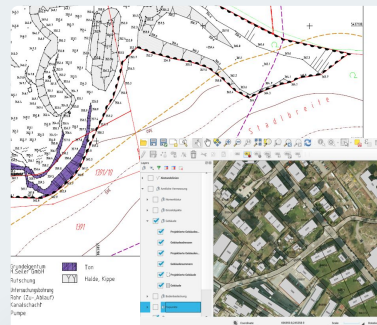


Process



Vectorize

GREAT !



CAD/GIS

I need my deliverables to be  
compatible with CAD and GIS!



# Pix4Dmatic

## Photogrammetry at a large scale

Designed for the next generation of mapping, covering larger and larger areas.





# Pix4Dmatic's highlights

- Supports the major drone manufacturers:
  - Parrot
  - SenseFly
  - Wingtra
  - DJI
- For Windows and macOS





Pix4D**matic**

BETA

Commercial release this summer



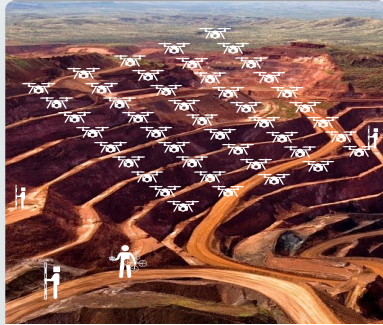


Pix4D**survey**

## **Bridging the gap between photogrammetry and CAD**

Nate Moore  
Product Owner

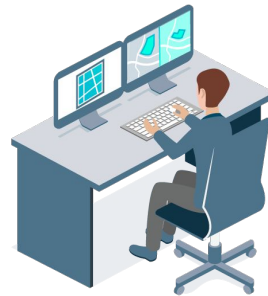




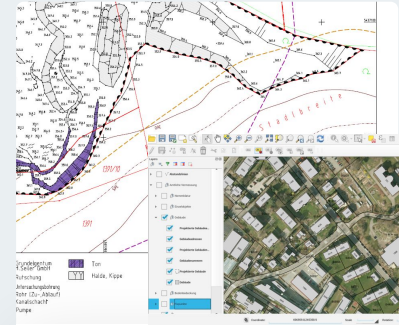
Acquire



Process



This step takes 2/3rds of the time!!



CAD/GIS



# Why does this gap exist?

- Big sets of images
- Huge point clouds, orthomosaics and DTMs
- CAD software cannot easily handle large point clouds
- Many software tools = long learning curve
- Disconnected workflows





## Extract the data you need

A next step in Pix4D photogrammetry workflows to simplify your connection to GIS and CAD, making planning and design easier.







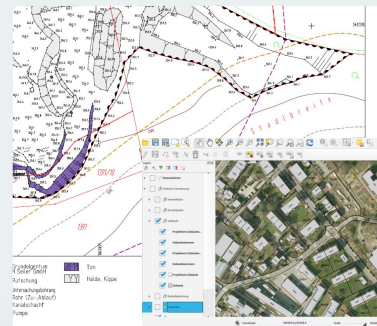
Acquire



Process



Vectorize



CAD/GIS



I need my deliverables to be compatible with CAD and GIS!

# Import projects from Pix4Dmapper, or any .las or .laz file



.p4d



Any point cloud source (aerial or  
terrestrial LiDAR, photogrammetry,  
total station, etc)

# Beyond the point



Vectorize anything



Flexible & scalable

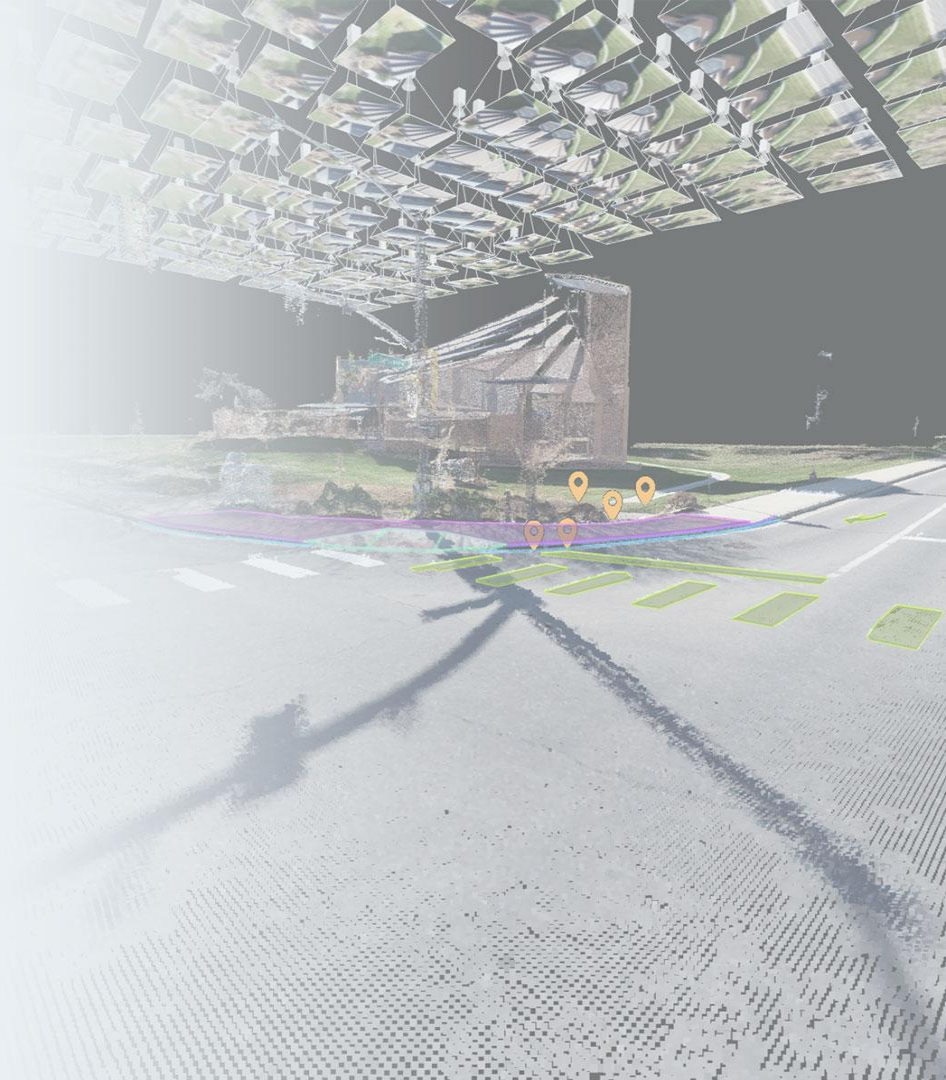


CAD ready



# Outcomes

- Reduce overall surveying time
- Improve the compatibility with GIS and CAD tools
- Simplify the 3D data reduction/extraction process
- Leverage the power of the rayCloud<sup>tm</sup> for detailed vectorizing
- Expand possibilities





Pix4D**scan**



Pix4D**inspect**

# Automating industrial inspection and asset management

Alexis Castilla  
Head of Product





Pix4D**scan**

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The professional drone flight  
app for industrial inspection

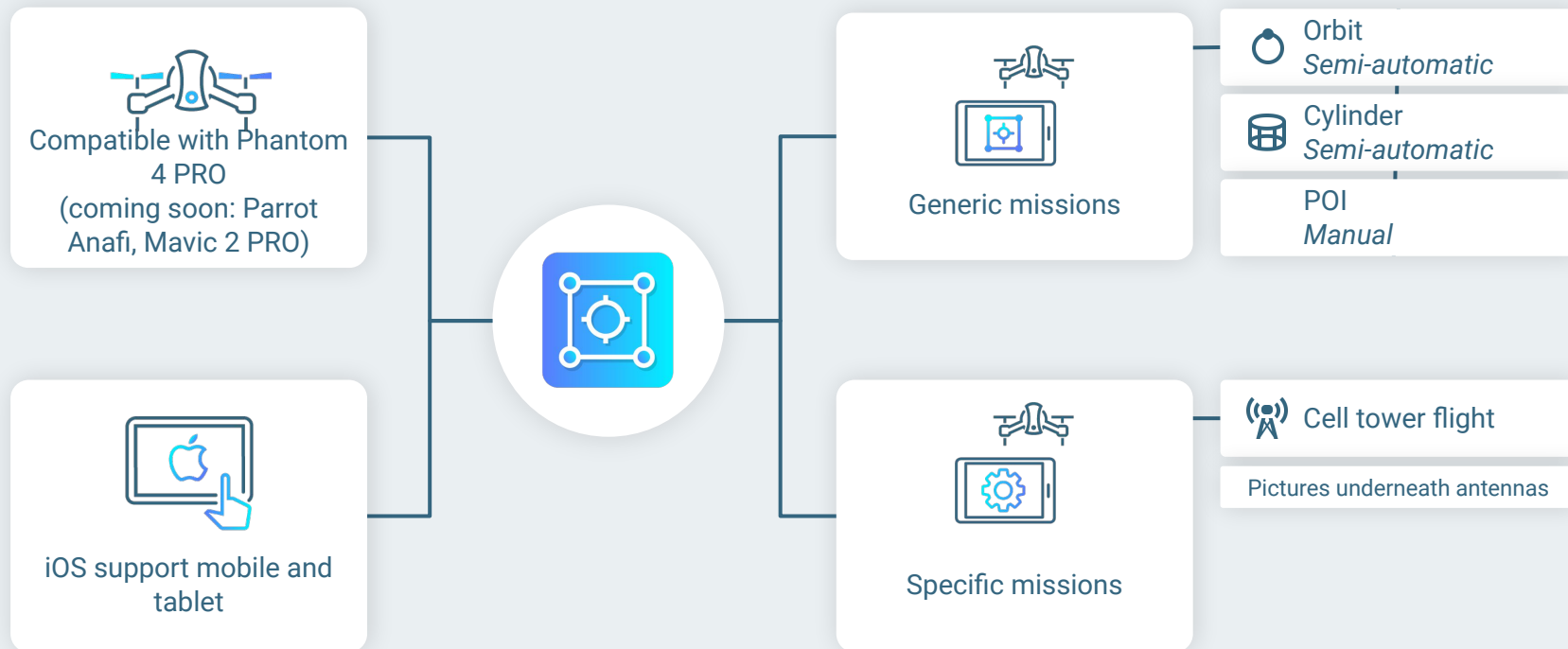


## Pix4Dscan workflow

1. Select a mission
2. Adjust your flight
3. Start and fly
4. Upload your data



# Pix4Dscan app key features





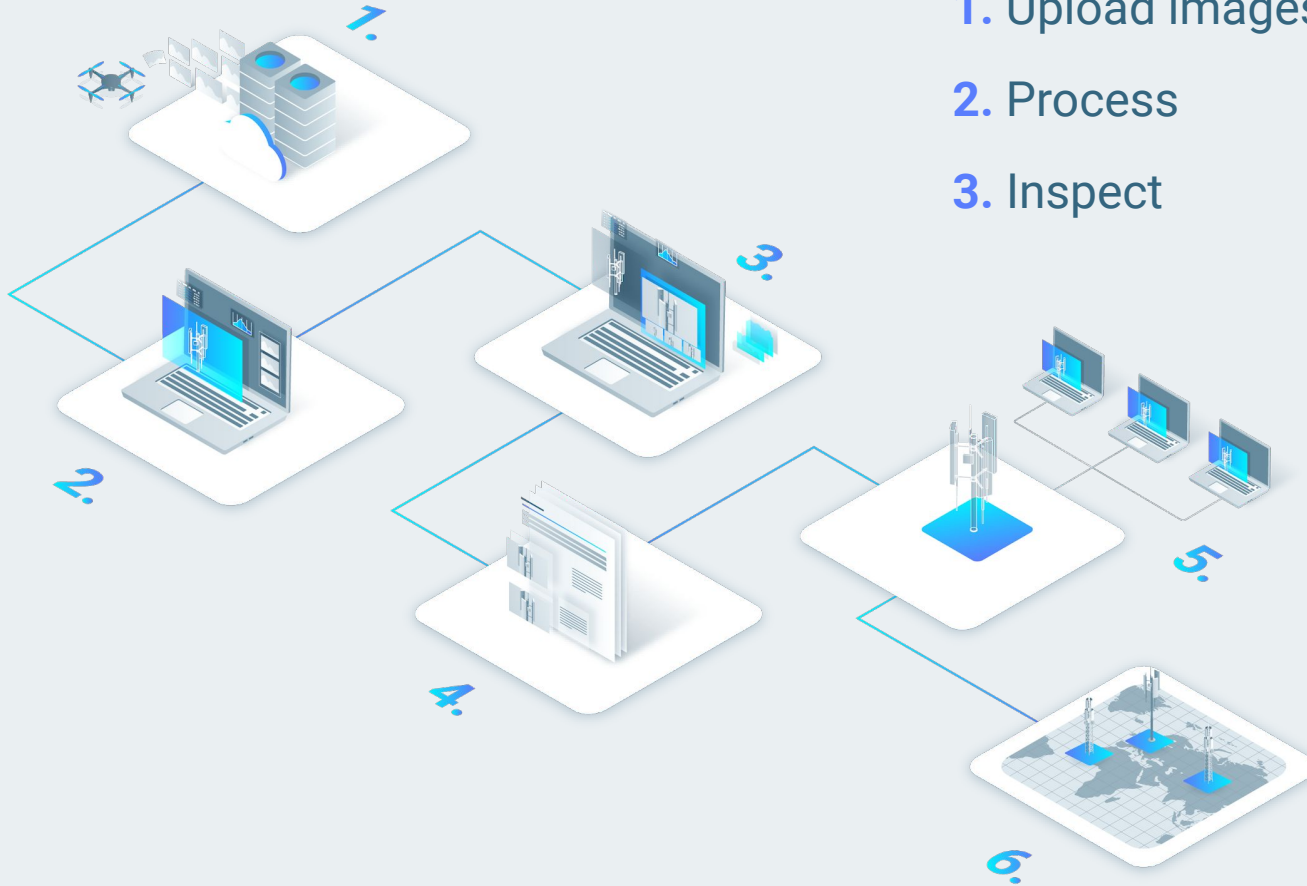
# Pix4D**inspect**

Automating industrial inspection  
and asset management



## Pix4Dinspect workflow

1. Upload images
2. Process
3. Inspect
4. Report
5. Store & share
6. Manage





# Telecom towers

- Automatic detection of **antenna** angles and measurements: **downtilt**, **azimuth**, plumb, heights, length, width.
- Available space review: measure antennas and asses tower capacity for collocation. Ensure regulatory compliance.
- Make **inventory** and lease validation through antenna identification.
- Analyze tower **pre and post-construction** and modifications. Mount mapping and analysis.
- Structural analysis: analyze mast and antenna conditions for repairs and replacement.

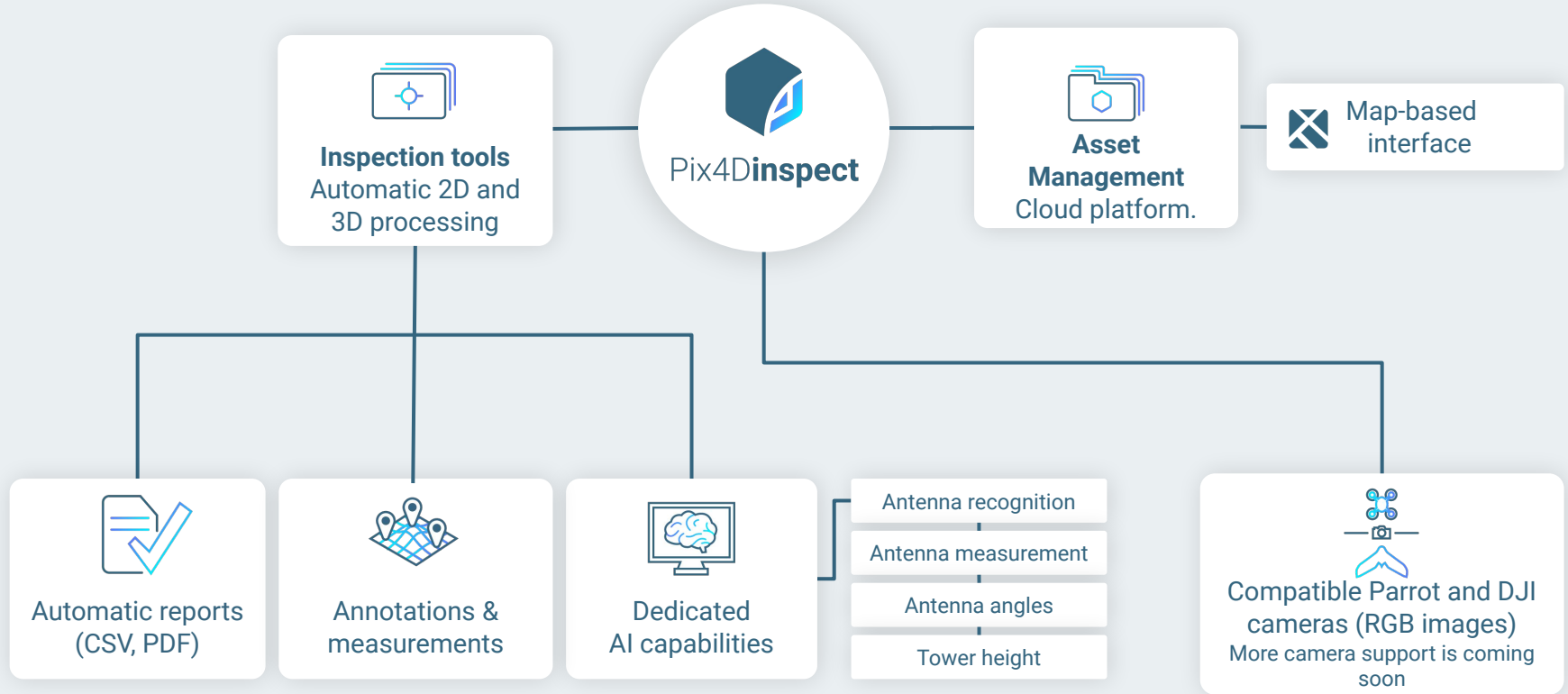


# General applications

- Perform remotely **highly-accurate, end-to-end visual inspections**: 2D and 3D measurements and annotations and automatic reports.
- **Digitize your portfolio**: access and share your assets information anytime and anywhere. Keep track of your **inspection history** for predictive maintenance and informed decisions.



# Pix4Dinspect key features





Pix4D**react**

## 2D fast-mapping for emergency response and public safety

Florian Muehlschlegel  
Account Executive





Pix4D**react**



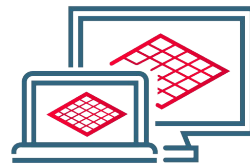
Fast



Simple to use



Affordable



Works on existing  
hardware



# Pix4D**react** workflow



Pix4D**capture**



Plan your mission  
and fly your drone



Retrieve your dataset from the  
SD card or plug in your drone  
with the USB cable



Process and explore the map  
using the desktop software





# PDF Export

Orthomosaic  
with markers



Marker details

No. of markers	5
Layer	Orthomosaic

2

Markers



Name: Eastern Access Road  
Length: 954.02 ft



Name: Engine  
Location: 32.5005358, -83.7512438



Name: Western Road  
Length: 599.09 ft

5



## Pix4Dmapper vs Pix4Dreact

- Demonstrative map, scale map or 3D model?
- Will measurements be used as evidence in a criminal or civil proceeding?
- Are vertical measurements required?
- Does the project require additional deliverables?
- Is the operational need immediate?



# Pix4Dmapper

## vs



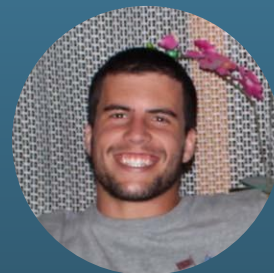
# Pix4Dreact



Pix4D**fields**

## Drone mapping for digital agriculture

Jorge Fernandez  
Head of Product

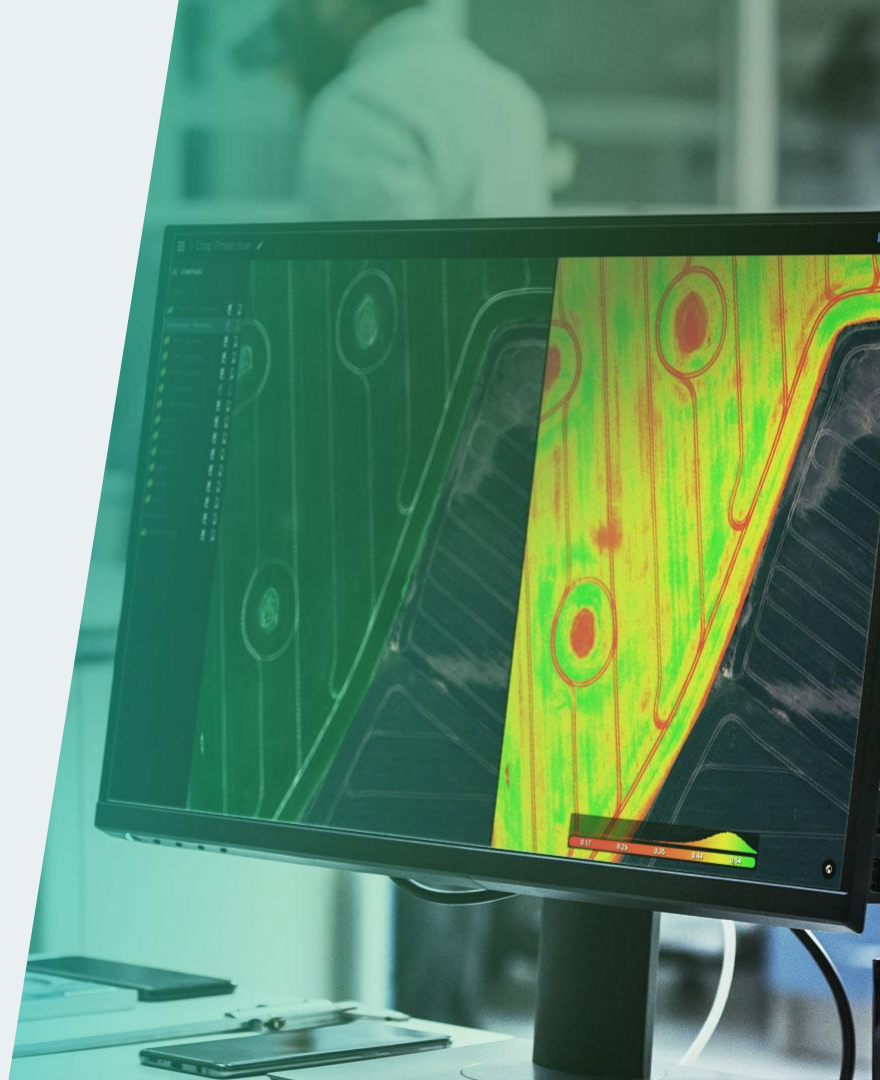




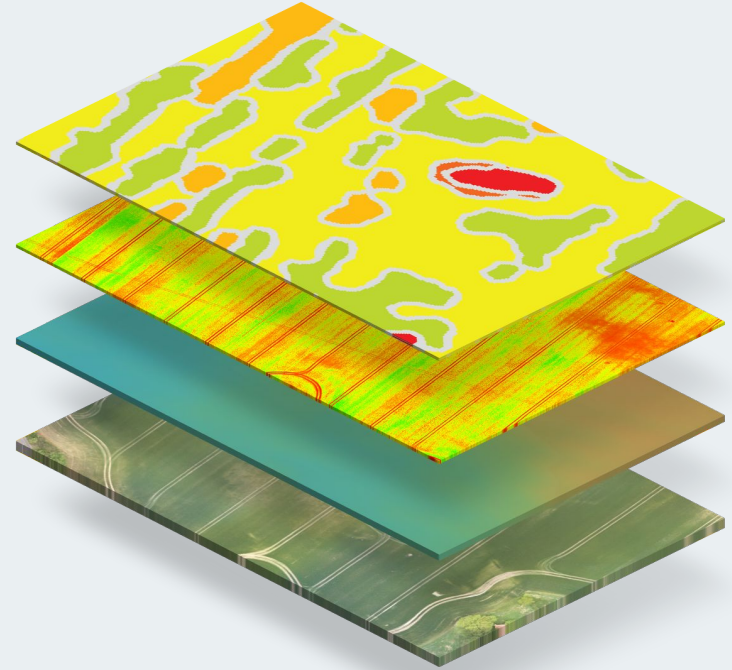
# Pix4D**fields**

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Advanced agriculture mapping  
software for aerial crop analysis  
and digital farming



- **Desktop software (MacOS & Windows)**
  - Available in: english, german, spanish and japanese
- **Inputs:**
  - Standard RGB sensors
  - Multispectral sensors (RedEdge, Sequoia, Altum, P4MSP, Sentra single, etc)
  - Calibration targets
- **Tools:**
  - GSD control, Index generator, comparison, annotations, zonation, prescription, pdf report, DataSync, John Deere integration and more
- **Outputs:**
  - Orthomosaics, DSMs, Index maps, Zonations, and Prescriptions



# What makes Pix4Dfields unique #1?



## In field results

Create maps rapidly (no internet connection required) for faster decision making and action, without leaving the field

*"[...] Being able to work offline is crucial [...]"*

**Nick Guadagnoli,**  
Technology Solutions Manager for 4Rivers Equipment





# What makes Pix4Dfields unique #2?



## Reliable maps

Always get maps of your fields and crops at any critical stage regardless of satellite availability and cloud cover.

*“Processing speed coupled with great analytics, [...] No other software can achieve this level of efficiency”*

**Nicholaus Helwig**

Owner Pinpoint Aerial Solutions

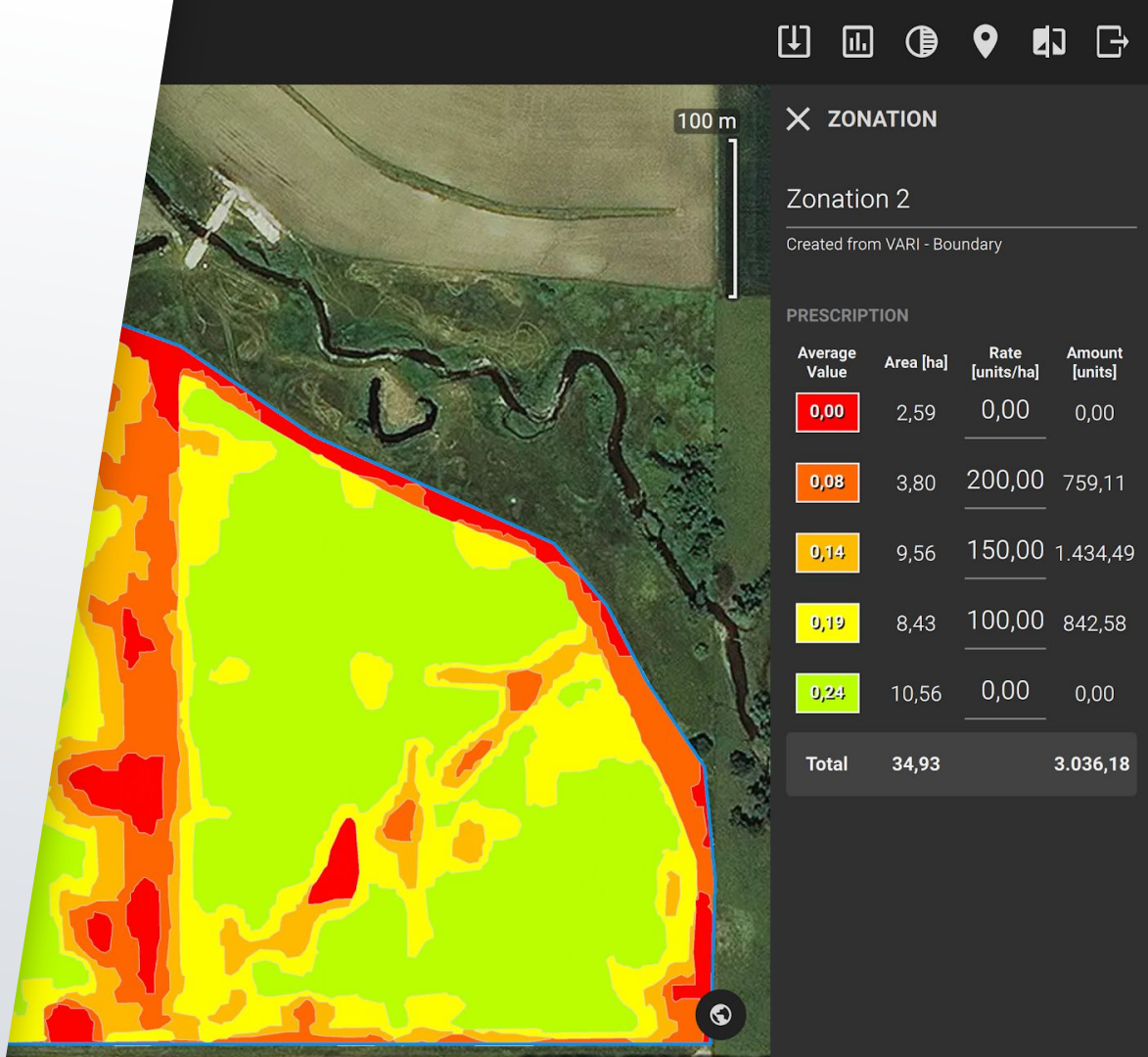


# What makes Pix4Dfields unique #3?



## Trusted results

Eliminate guesswork by analyzing crop health maps and measure issues using calibrated multispectral or full resolution RGB images.





An aerial photograph of agricultural fields, showing various rectangular plots and winding paths. The image is overlaid with a dark green, semi-transparent filter. The text is centered on the left side of the image.

## **Radiometry matters**

Pix4Dfields is continuously being developed to meet the needs of the agriculture industry, focusing on reducing the speed of processing while incorporating the highest radiometry standards backed up with years of scientific research

# What makes Pix4Dfields unique #4?



## Connected

Connect your data to platforms like the John Deere Operations Center, synchronize and access your data in-office and in-field for streamlined collaboration

*"it also eliminates mistakes caused by handwritten documentation [...] which can lead to costly crop destruction due to under or over-application of the product."*



# Agriculture Enterprise Solutions

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In-field activities



Office analysis



Data  
capture



Digital  
scouting



Aerial crop  
analysis



Crop data  
assessment



Report  
generation

# **We can't tell you enough stories in 10 min.**

## **Check out the blog**



**Use drone mapping for  
crop insurance**



**Enhance your agriculture  
workflow with Pix4Dfields**



**Drone mapping with the  
John Deere Operations  
Center**



**Internet of Fields: Drone &  
variable rate application**



**Precision farming for  
remote sugarcane  
plantations**



**Pix4Dfields 1.7: best  
practices for digital  
agriculture**





## **Streamlined learning experience**

Andrew McIntyre  
Technical trainer





# New [training.pix4d.com](https://training.pix4d.com)

An all encompassing platform for everything related to training



Instructor-led  
workshops or  
private training



Self-paced  
online courses



Certification exams

## Instructor-led workshops



- Available in different countries or online, and in multiple languages
- Learn about the theory with instructor-led presentations and then put it into practice with hands-on exercises
- Network with other professionals in your field

## Private training



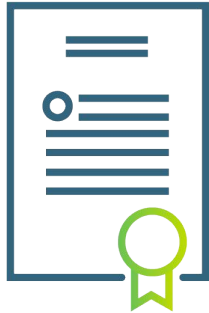
- In-person or online sessions are available to fit your schedule
- Get a deeper understanding of concepts that are related to your projects and gloss over the topics that are irrelevant to you

## Self-paced online courses



- Learn at your own pace at your home or office
- Learn about the theory with introductory videos and hands-on exercises
- Collaborate with other students or a trainer by starting a discussion in one or more lessons

## Certification exam



- Benchmark your skills and technical knowledge
- Lend yourself credibility in professional market
- Is composed of multiple-choice questions and requires at least 80% to receive a certificate



## Additional resources



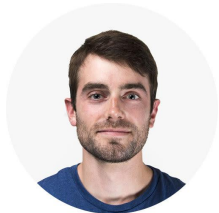
- Pix4D's support documentation contains a wealth of information about all Pix4D products
- Video tutorials highlight the most critical features and workflows

## Contact

- Learn more at [training.pix4d.com](https://training.pix4d.com)
- Questions about training? Contact us at [training@pix4d.com](mailto:training@pix4d.com)



**Ana Soares**  
Head of Training



**Andrew McIntyre**  
Technical Trainer



**Justine Cuevas**  
Technical Trainer



**Rhéa Garratt**  
Technical Trainer



**Aaron Woods**  
Technical Trainer

A person wearing a dark jacket and a high-visibility safety vest with the Pix4D logo on the back is walking away from the camera. They are carrying a large, dark, rectangular object under their left arm. In the background, a large, complex lattice tower, likely a telecommunications or power transmission tower, stands against a clear sky. The entire image has a blue tint.

PIX4D

# Thank you

[pix4d.com/contact-us](https://pix4d.com/contact-us)