

PROCORE



ConstructionOS

Drones for your Jobsite: The Coolest Tool in your Toolbox

Alex Kube, Chief Strategy Officer @
Botlink



Alex Kube, Chief Strategy Officer @ Botlink



Agenda

- + Drones for everyone in 2017
- + Drones for construction
 - > The real reason why
 - > Use cases
 - > Bonus(es)
- + How to get started
- + Questions



Drones for everyone



5,000,000+

Drones in the sky
by end of 2017



\$1750

Average price of drone
for commercial use
(approximate)



\$150

Cost of getting
commercial drone
license from FAA

Drones for your Jobsite



Many functions, one overall goal: Save costs

Labor saving opportunity

- + 200,000+ unfilled construction jobs
 - > February 2017, BLS
- + Due to lack of workers, construction worker wages are rising faster than any other industry

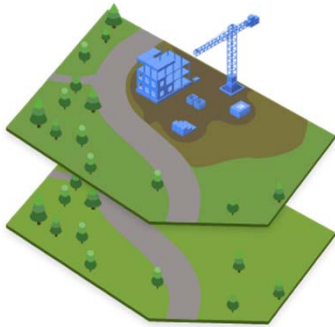
Waste reduction opportunity

- + 98% of construction projects go over budget
- + 25-40% of solid landfill waste comes from construction projects
- + Equivalent to \$160 billion per year in lost profits across the industry

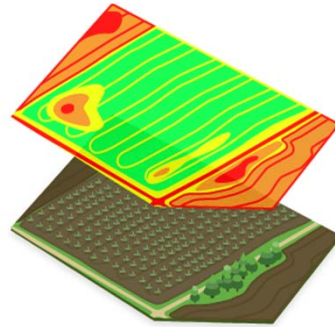
Do more with less

- + Drones allow you to realize efficiencies on both a large and small scale
- + Collect more data in a shorter amount of time with fewer people
 - > Existing data
 - > New data

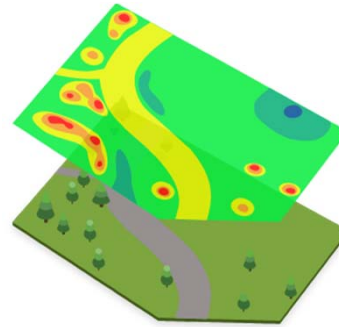
Data collected



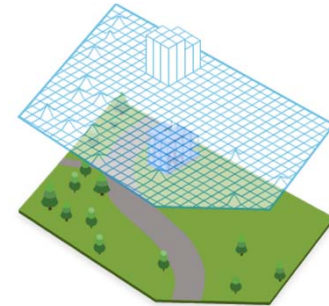
HD Maps



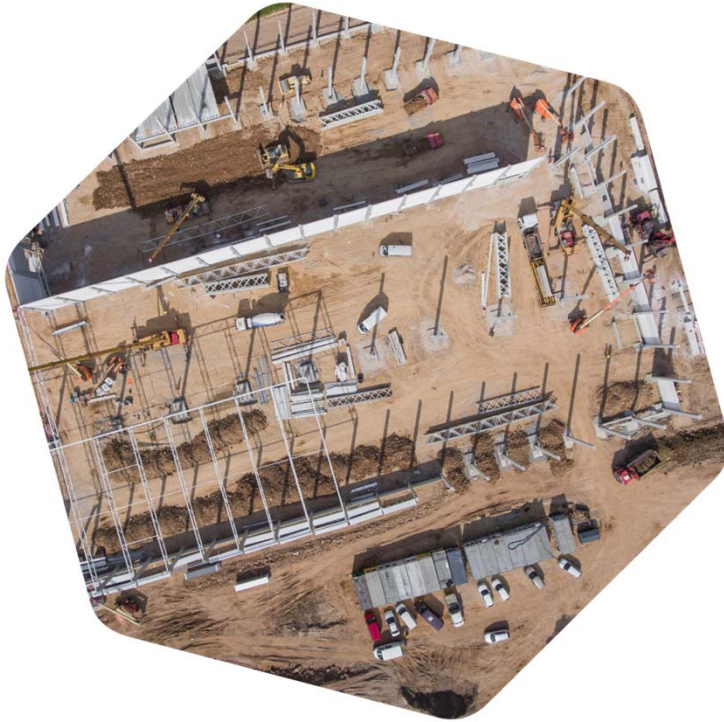
Vegetation
Maps



Elevation
Maps



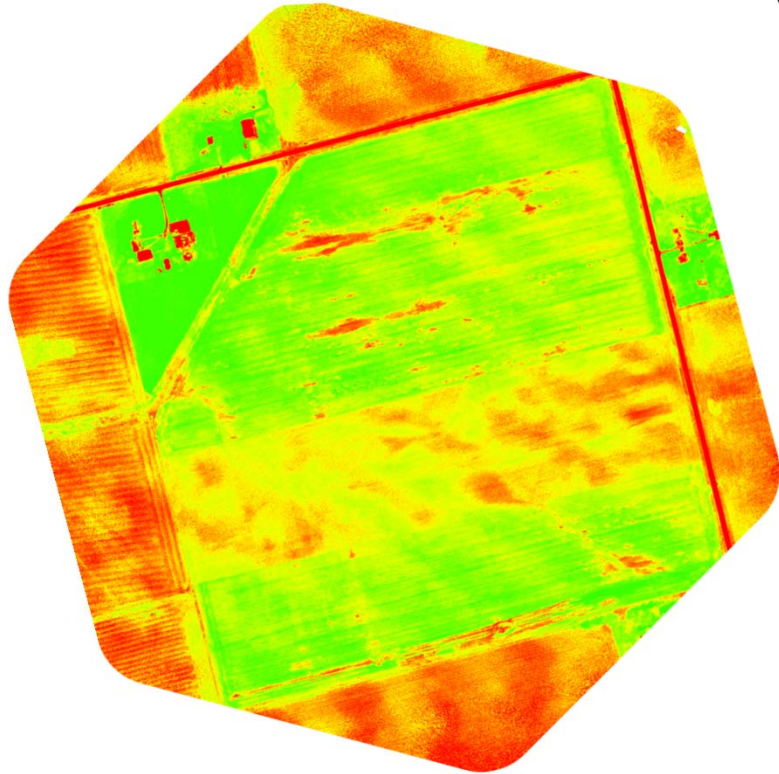
3D Maps



HD Maps

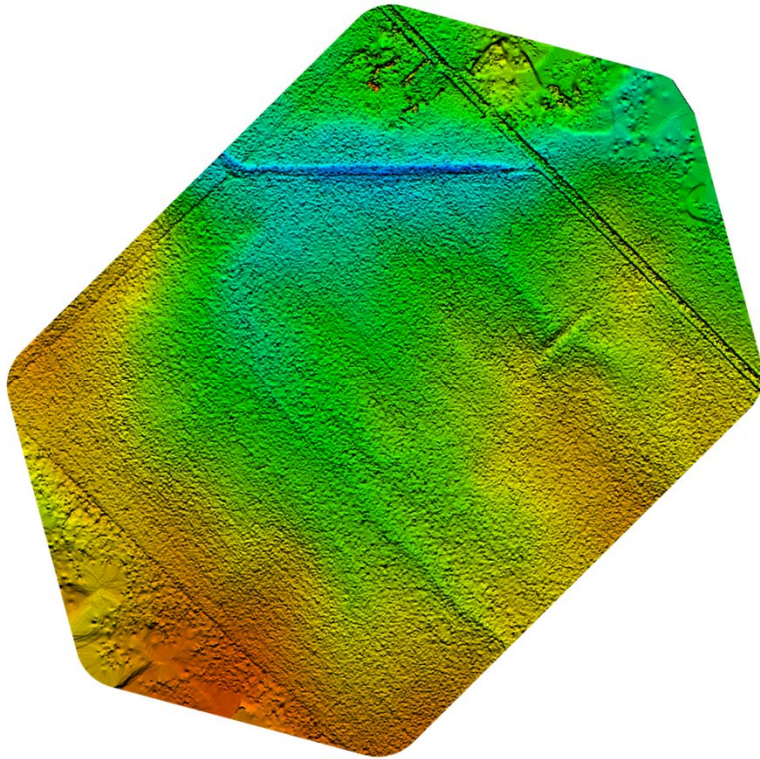
- + Get an easily understandable view of progress
- + Very high res < 1cm/px possible
- + Share with offset management and other stakeholders
- + Reduce number or duration on-site visits for key personnel

Vegetation maps

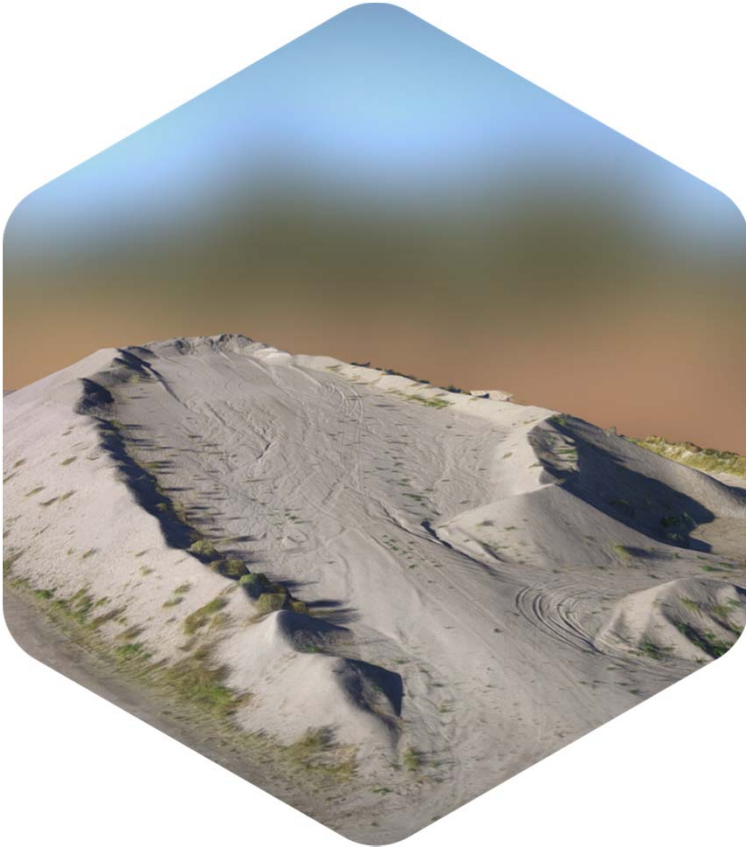


- + Great for green roofing projects
- + Monitor the health of plants as they are growing
- + Prove to customer that the roof vegetation was alive when you delivered it

Elevation maps



- + Great for pre-construction
- + Quickly visualize high and low points
- + Understand the lay of the land before positioning materials and equipment

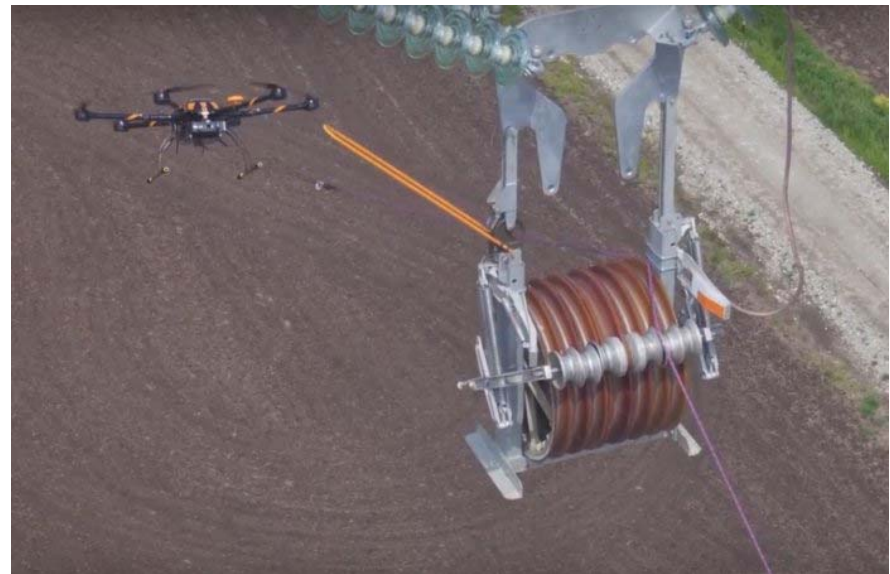


3D maps

- + Great for monitoring material movement + BIM
- + Get accurate measurements of soil, aggregate, and other stockpiles
- + Import models into your BIM software for as-built validation

Don't just monitor — use drones to build

- + North Dakota company just used drones to pull cable for high-tension power lines
- + Replaced helicopter + crew
- + First use of drone to assist in moving/placing materials



Not just a cost center

Drone Service Provider

You have the drone, pilots, and insurance — why not make some more money?

New Revenue Opportunities

\$350 - \$650+ / hr
For drone services

If you have idle pilots, you have a revenue opportunity

Getting Started

**License +
Insurance**

Step 1

**Use case +
Software**

Step 2

**Hardware +
Accessories**

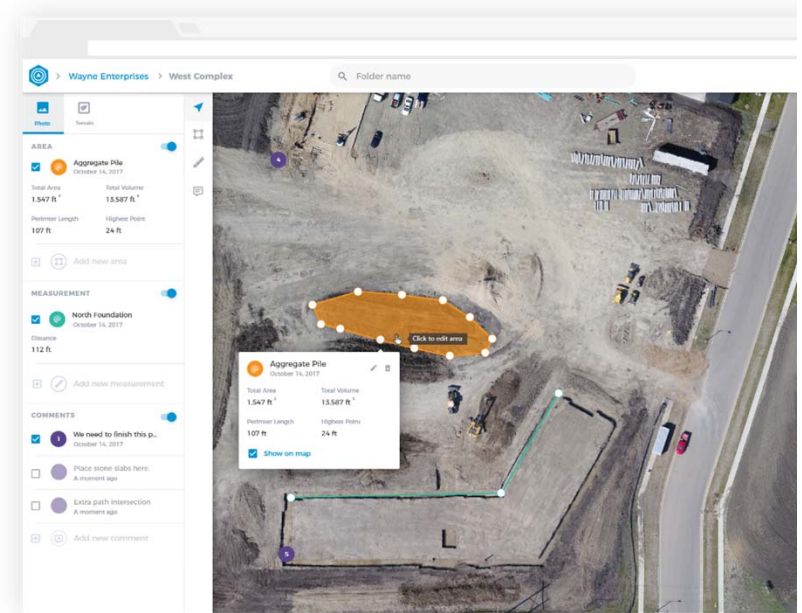
Step 3

License + Insurance

- + Make sure your pilots are licensed before they fly
- + \$150 exam, 40 questions
 - + FAA provides study materials & practice exams online
- + Talk to your insurance provider
 - + Most companies now offer or resell drone policies
 - + NOT covered under general business liability

Use case + Software

- + Decide how you're going to use your drone
 - + Marketing? Engineering?
 - + Determines software selection
- + Find software that does as much as possible for you
 - + Processing, data organization, syncing, etc.



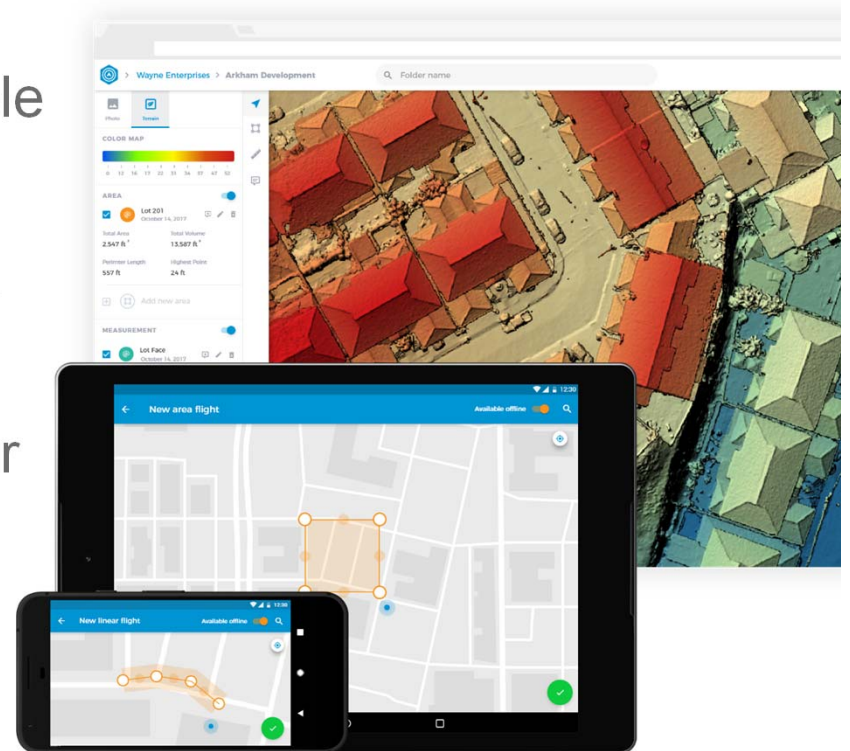
Hardware + Accessories

- + Make sure your drone is compatible with your use case & software
- + Don't overspend
- + Don't underspend
- + Unless you can say specifically why you need something else, just buy a DJI Phantom 4 Pro



Botlink can help

- + Botlink can help you with the whole process
- + We provide software to help you capture aerial imagery, process it into a map, and inspect your job site easily
- + Integrates with Procore so all your job site data is available in one place



Q + A



THANK YOU!

Contact Us 866.477.6267 sales@botlink.com

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