Meet propeller

We build hardware and software that simplifies data capture, processing, and analysis for survey managers and their sites in the heavy civil and resources space.

Propeller Snapshot

More than 4,000 companies are using Propeller to process over 130,000 surveys across 25,000 worksites in 79 countries.

- Founded in 2014
- Strategic partnerships with Trimble, DJI, Komatsu
- Working with 70+ SITECHs worldwide
- Offices in Denver, Sydney, Manilla, Amsterdam
- 180+ staff in 8 countries
- 24/7 live customer support

Propeller & Trimble & SITECH GTM

Why do we sell through 70+ SITECH dealers globally?

Shared Customers
Earthmovers
using Machine Control

Strategic New Tech
SITECH opens doors
with the latest tech

Complementary
Trimble Stratus also supports
GPS & Total Station data

Stickiness
Trimble Stratus "*sticks*" with
customers better alongside
other Trimble products

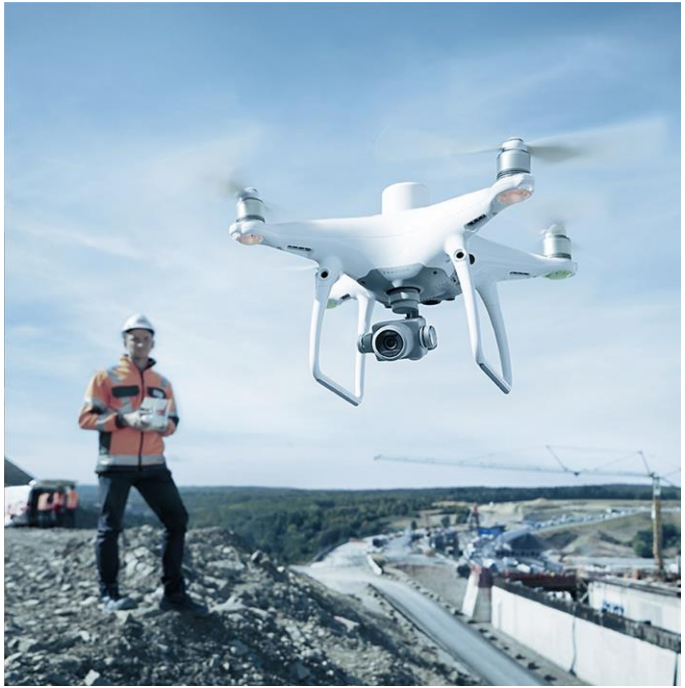
Existing Stratus customers in Europe

Why use drones for site surveys?

(Alongside traditional methods)

Drones allow surveyors to reduce survey times, increase safety, and get a much better picture - without sacrificing accuracy

- 100s of hectares surveyed at a time
- 1,000,000s of elevation points created
- Imagery and elevation simultaneously collected
- Surveyor can work on active sites



What's been hard about drone surveying?

- Data capture is not streamlined
  - Unreliable data quality
  - Time-consuming to get ground control
- Data processing is time-consuming
  - Quality assurance takes a lot of time from survey expert
  - Multiple software tools needed to do progress tracking
- Data is useful but not accessible
  - No way to share surveys, measurements, reports

Product Overview

PPK Workflow

3cm accuracy with 1 AeroPoint

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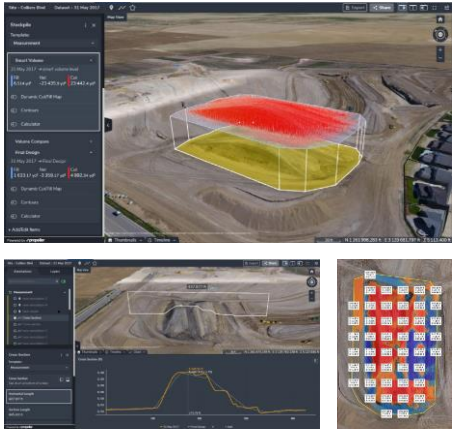

Trimble Stratus

Earthworks progress tracking platform plus processing service & support

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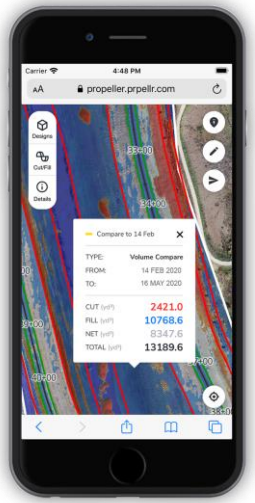
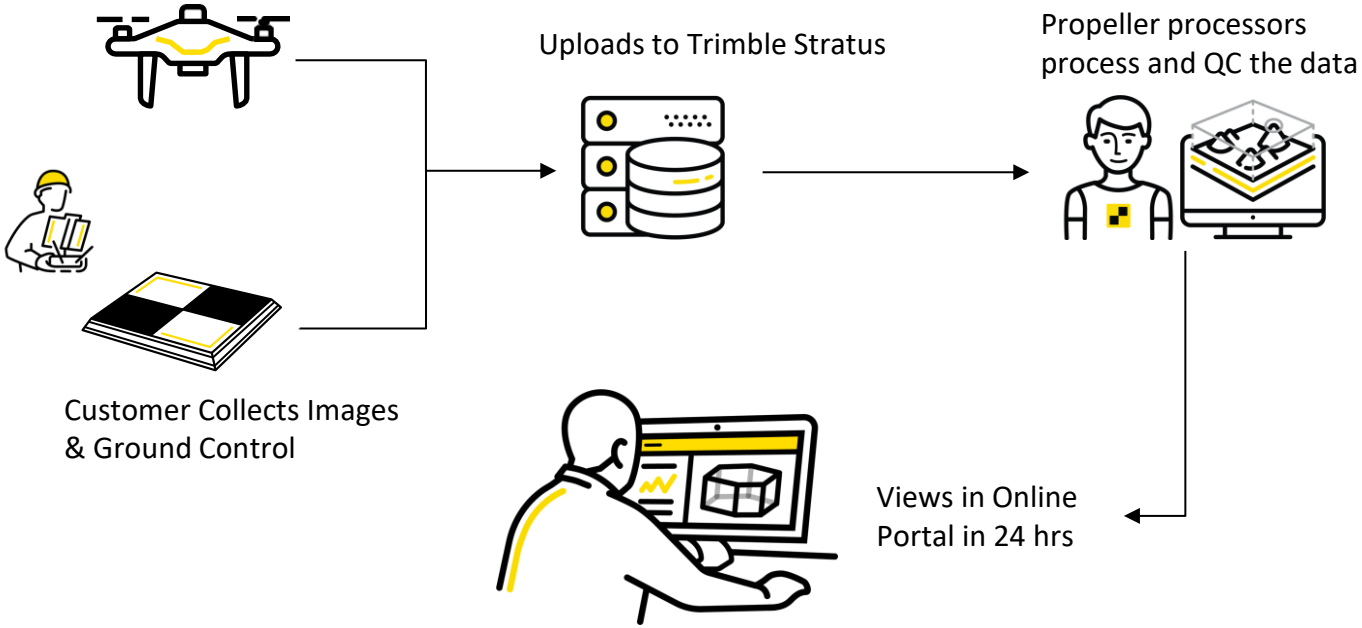


Crew

Mobile maps add-on for field teams

Trimble Stratus Workflow



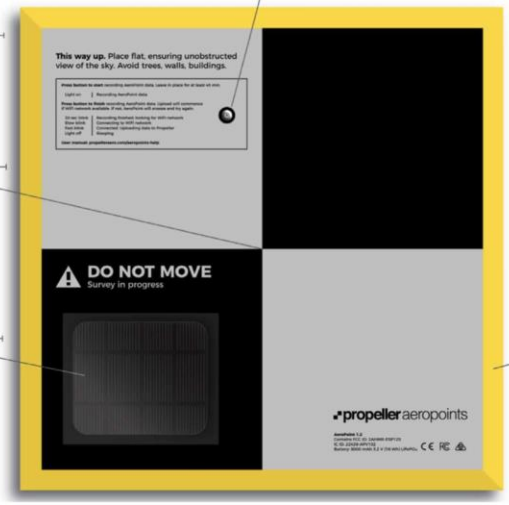
AeroPoints

Self-surveying ground control points

One button operation
Just place-and-press. Indicator light displays current status.

Large memory
Store data from 100+ flights before upload is required.

Lightweight
1.5kg (3.3 lb). Each set includes a carry bag for easy transport.



In-built GPS
Records positioning data every 10 seconds.

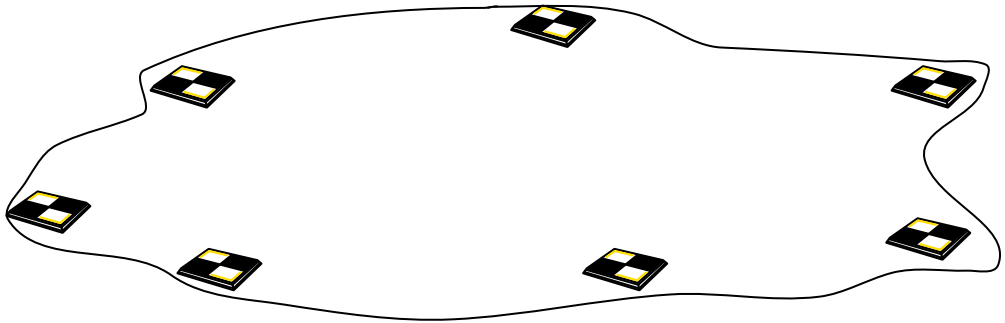
Strategic design
Optimised for recognition by processing software.

Solar powered
Low maintenance. Charges while running. Powerful $LiFePO_4$ battery for long storage life.

Rugged and durable
Water-resistant. Aerodynamic shape prevents shifting and aids water runoff.

Drone Survey Workflow

How we help anyone ensure 3cm accuracy



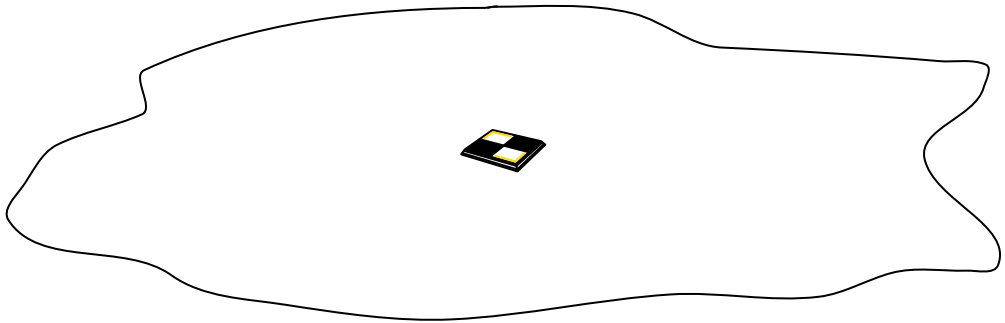
Data collection is easy now:

Put down ground control points to get 3cm accuracy
Use GPS rover or AeroPoints

Drone collects images with specific flight and camera settings
Use a checklist

Drone Survey Workflow - With PPK

How we help anyone ensure 3cm accuracy



PPK is easier & faster:

PPK (Post Process Kinematic) is a method of applying differential corrections to your drone's GPS data

1 ground control point
to get 3cm accuracy on ~40ha

Available for

- DJI M3EA
- DJI M300

Drone Survey Workflow - With PPK

How we help anyone ensure 3cm accuracy

Accurate, reliable, easy-to-use, and affordable

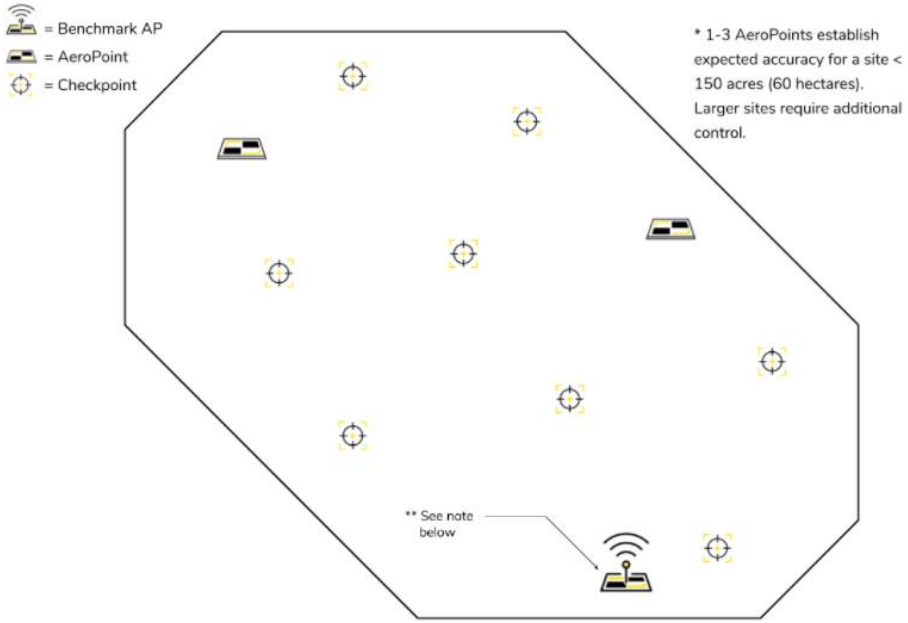
PPK hardware bundle:

- DJI Drone w/ accompanying accessories
- 1 AeroPoint
- 1 year protection plan
- Lifetime of Trimble Stratus PPK processing for the drone

Use additional AeroPoints for larger/linear sites, or as independent validation

Ground control on typical sites

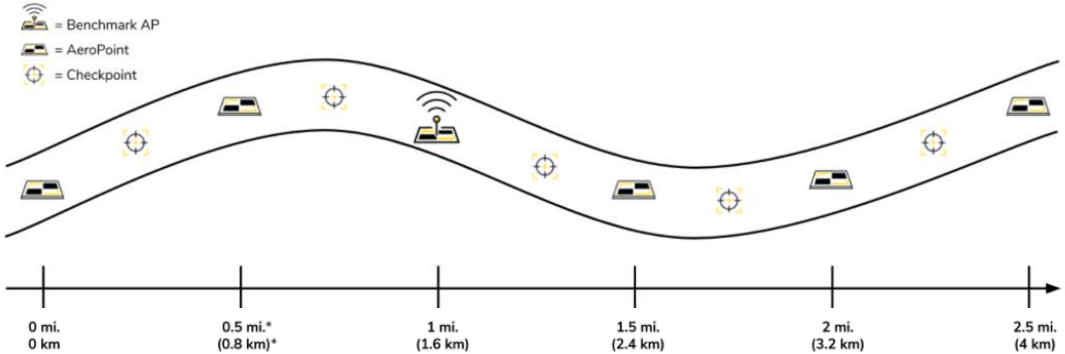
Suggested distribution



From https://www.help.propelleraero.com/en/articles/173

Ground control on larger/linear sites

Suggested distribution



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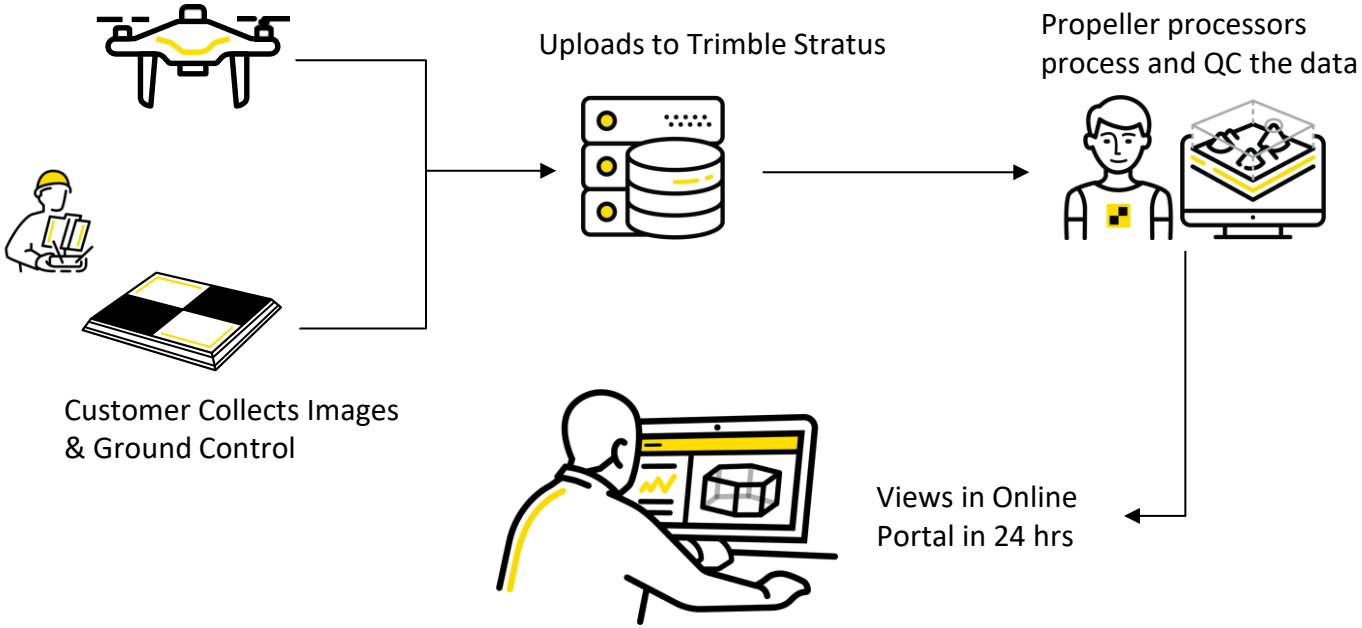
Trimble Stratus Workflow



Trimble Stratus ROI

How customers see a return on their investment

Save time & money by streamlining in-house surveying

It takes less than an hour to survey 60ha with a drone. Trimble Stratus saves surveyors ~3 hours of processing & QA time on every dataset, which for most customer is the key to flying weekly surveys. Survey teams have many more valuable things to do.
"Propeller is the cheapest employee you'll hire"

Reliably accurate data helps projects stay on track, avoiding cost

When frequent & accurate surveys become available and easy to share, worksites communicate better internally & externally, teams are more aligned, catch mistakes earlier, do less rework, face less disputes - ***helping earthmovers to do more in the same time.***

Trimble Stratus & Competition

How do we compare to alternatives?

	Trimble Stratus	Pix4Dcloud / Agisoft	DroneDeploy
Processing	Supervised processing, survey-grade quality control	Do it yourself	Fully automated processing (QC done by customer)
Measuring	Compare survey-to-survey and survey-to-design	Analyze 1 survey at a time	Visually compare surveys (limited accuracy)
Who uses it	Anyone at an earthmoving company (with our support)	Trained expert (surveyor only)	Anyone in any industry (agriculture, insurance, asset inspection, etc)
Why use it	Track progress and volumes Spending less time Collaborate on the info	To control the photogrammetry result (not to track progress)	Get 3D models quickly (no accuracy required)

Trimble Stratus vs processing in-house

What are the drawbacks from processing in-house?

1. Only accurate when an expert spends hours on every dataset
2. No progress tracking in the same software
3. Limited possibilities for sharing maps & measurements
4. Limited support, which makes adoption difficult for non-experts
5. Often more expensive, when you count man hours & equipment

In-house processing turns out to be unscalable for earthmovers, making it unsuitable for most.

Wills Bros (UK)

- British earthmover & quarry operator across UK & Ireland
- $90M+ turnover, 300+ people, self-performing earthworks
- Started using Trimble Stratus on Maybole A77 & A6 D2D Dualling
  - Processed in-house with AutoDesk Recap previously
  - First license was a 30-pack, next unlimited
  - Bi-weekly flights across active parts of the site
- Expanded to 9 projects now, going to 11
  - New projects: N5 project with Sacyr
  - Currently using 3 unlimited licenses + PPK bundles
- Contact person is Pawel Szumski, senior engineer, who's giving us feedback as a beta user on new features
- Other decision-makers in the buying process were Marcin Nowosiadly, IT manager, and Jonathan Wills, owner

[UK-based Wills Bros Embraces Drone Surveying to Improve Road Construction Efficiency]

Customer journey after they buy

Pricing

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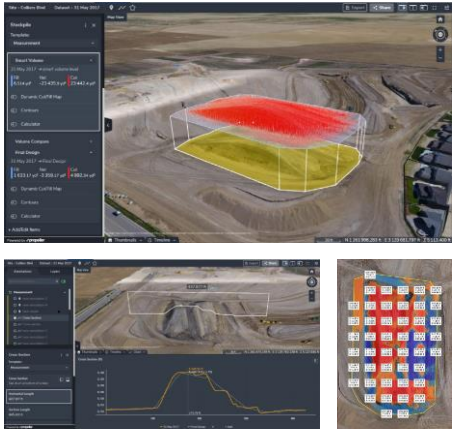

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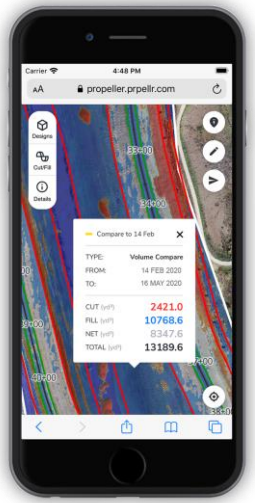

Crew

Mobile maps add-on for field teams

Stratus Pricing

Hardware (recommended):		
PPK Upgrade (for 1 drone)	1 AeroPoint, 1 AeroStencil, Unlimited PPK corrections; excl shipping	**€2,000** per drone *(one-time when using Trimble Stratus; annual if using another software)*
P4RTK drone + PPK	1 DJI Phantom 4 RTK drone, 1 AeroPoint, 1 AeroStencil, Unlimited PPK corrections; excl shipping	**€5,500** *(one-time when using Trimble Stratus; annual if using another software)*
Software (most sold):		
Unlimited Surveys (annual) for DJI P4RTK + PPK	Single Drone, Unlimited Sites, Unlimited Users ***Requires Propeller PPK*** ***Up to 2,000 images per survey***	**€12,000** per drone *(PPK license sold separately for €2,000)*
15 Surveys (annual) 30 Surveys (annual) 55 Surveys (annual) 110 Surveys (annual)	Unlimited Drones, Unlimited Sites, Unlimited Users ***Any drone type*** ***Credits available for 12 months*** ***Up to 1,000 images per survey credit***	**€6,000** **€9,000** **€12,000** **€21,000**