



More tools, More problems.

The true cost of reality capture point solutions
(and how to overcome them)

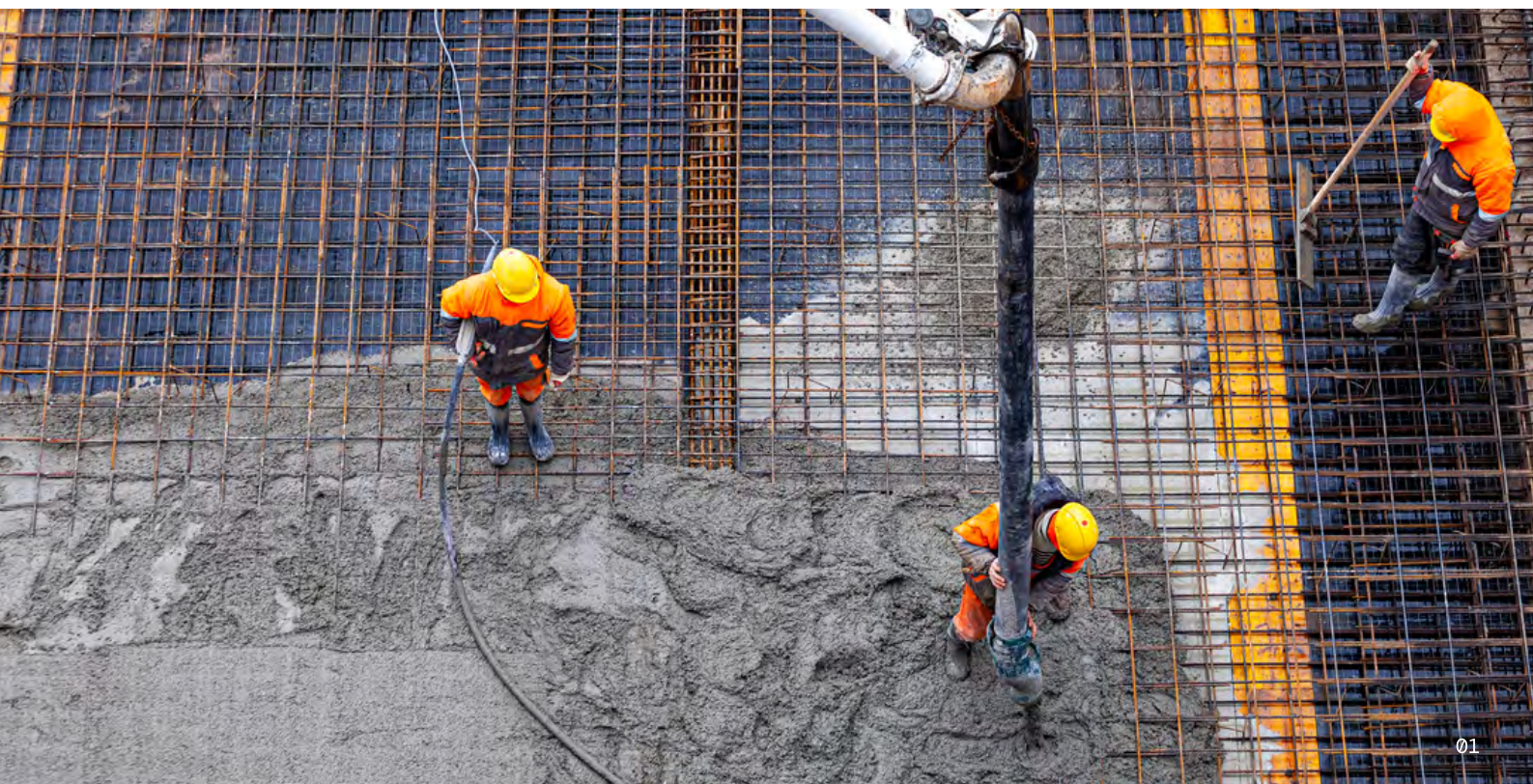
There's more to the price of single-use tools than the price tag.

Reality capture is getting a reality check. For years, easy venture capital funding has flowed into the reality capture space, leading to GCs becoming inundated with a flood of specialized, single-use software solutions.

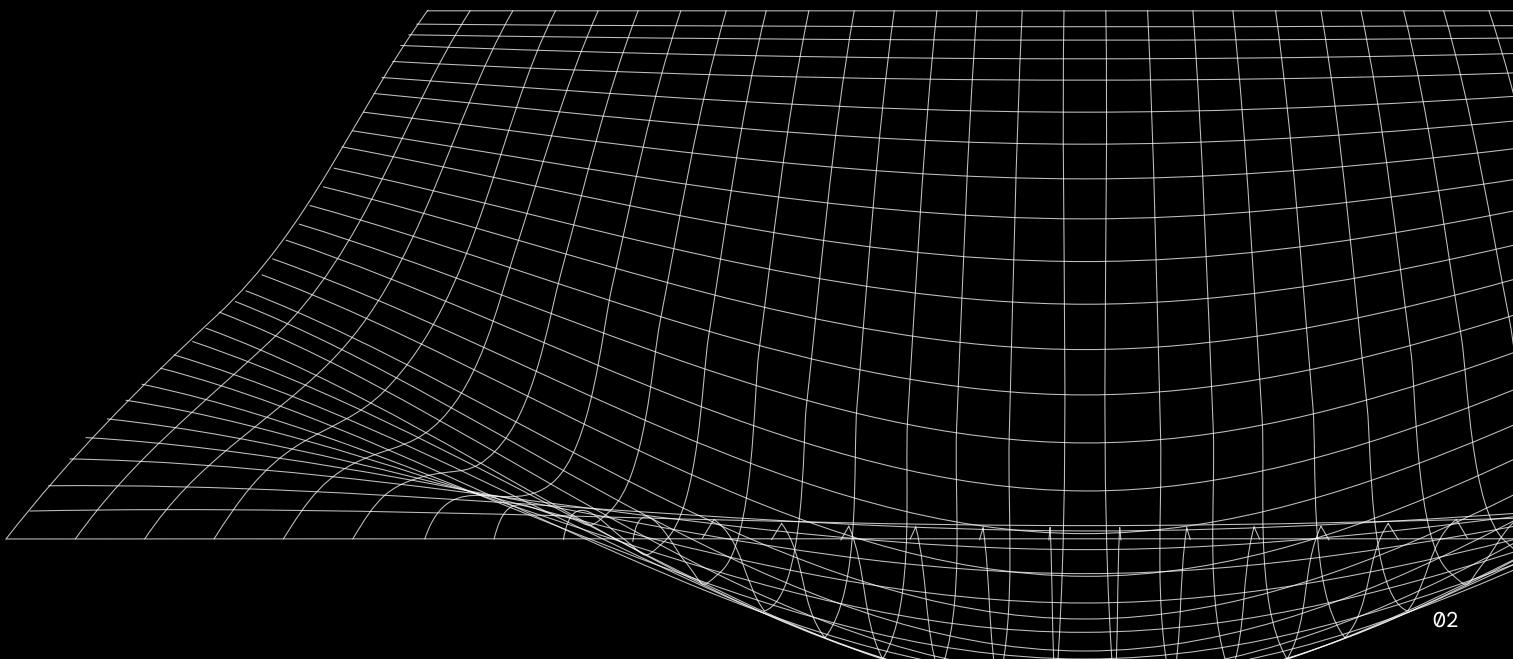
Fast forward to today and tech fatigue has set in. GCs are waking up to the fact that these small-scale reality capture tools create large-scale inefficiencies — things like manual processes, redundant training, exposed data and fragmented visibility into job sites.

All told, the slow creep of adopting single-use reality capture tools raises the total cost of owning these point solutions well beyond the purchase price.

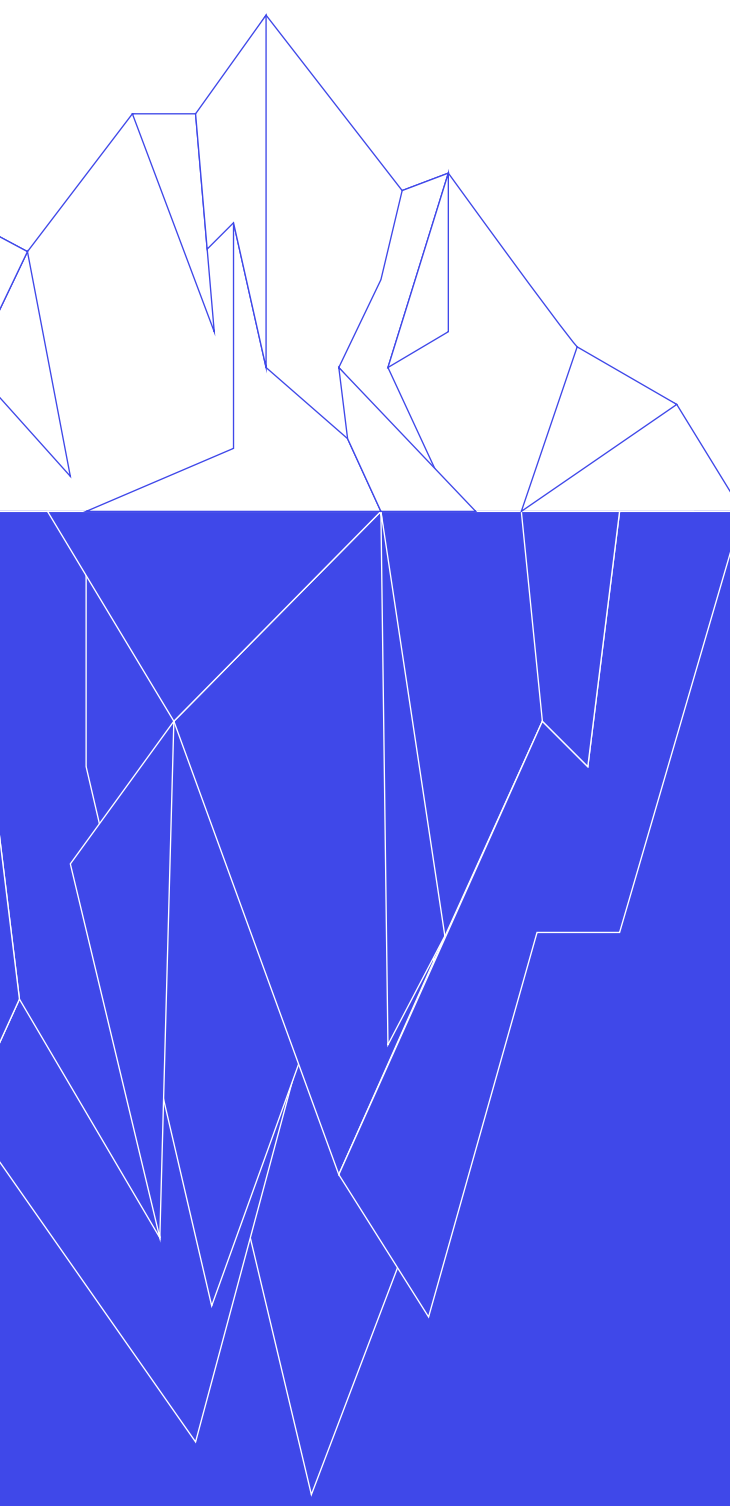
It's time to adapt how you adopt reality capture - from multiple point solutions to a single source of reality.



The **hidden** costs of adoption creep



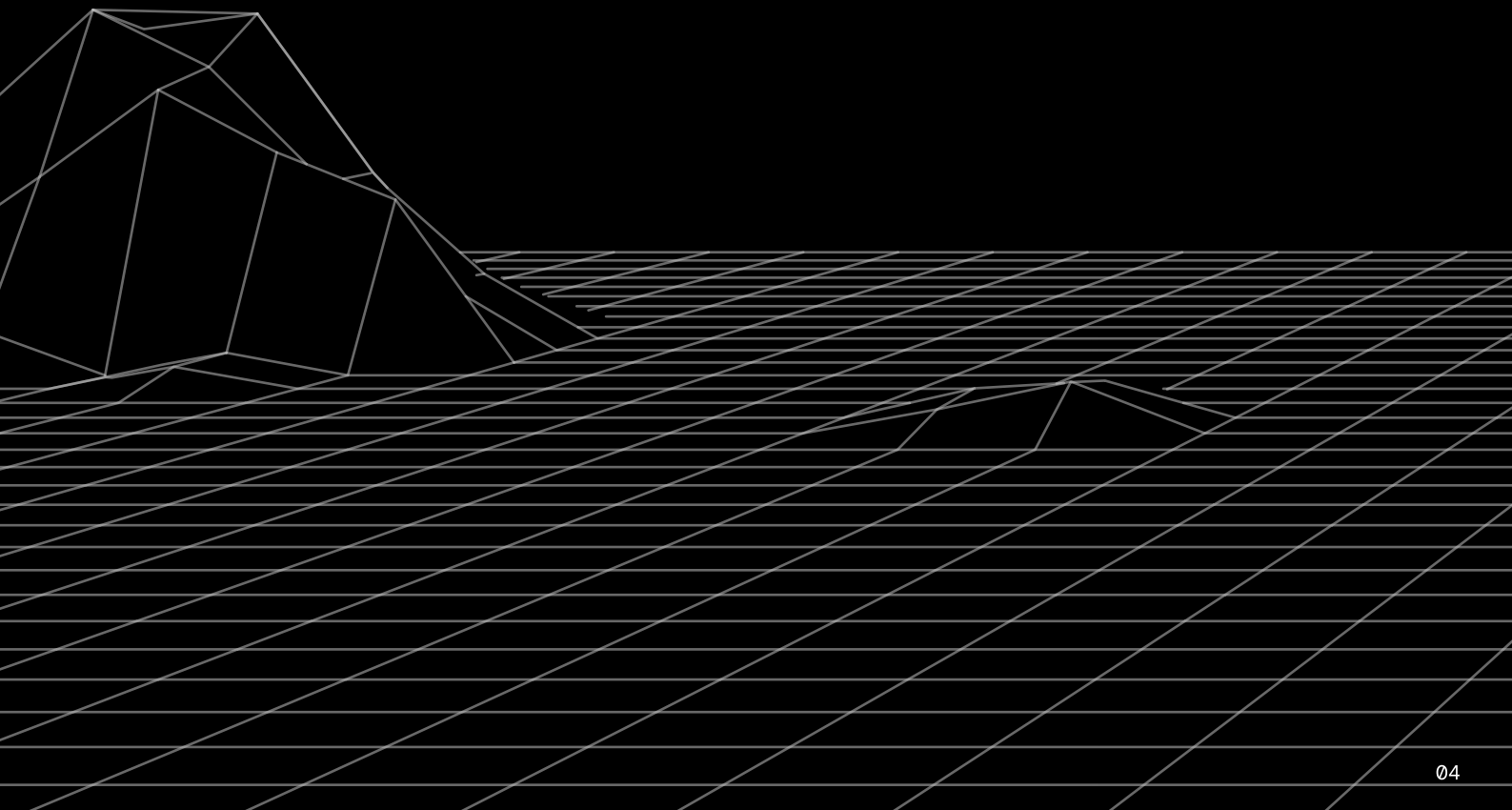
Inefficiencies are just the tip of the iceberg



- Multiple tools to manage
- Multi-supplier fatigue (and risk)
- Commercial, support and contract inefficiencies

- Cyber security risks
- More training and communications
- IT maintenance, upgrades and infrastructure
- Integrations with other point solutions
- Accuracy and discrepancies across tools
- Procurement complexities
- Hardware and software compatibility
- Shadow IT challenges
- Single sign-on (SSO)

**In the rush to adopt
single-use point solutions,
top ENR 400 construction
companies are
vulnerable to the
negative effects of
adoption creep.**



81% of large construction firms use multiple point solutions for reality capture



This compares with:

76% of enterprise* businesses using multiple point solutions to perform reality capture.

*companies with 100 employees or more

76%

Of those using multiple point solutions:

55% identified **time loss** as the largest pain point.

55%

And none of this aligns with goals:

76% of businesses are focused on increased operational efficiency and productivity – **not tool adoption.**

76%

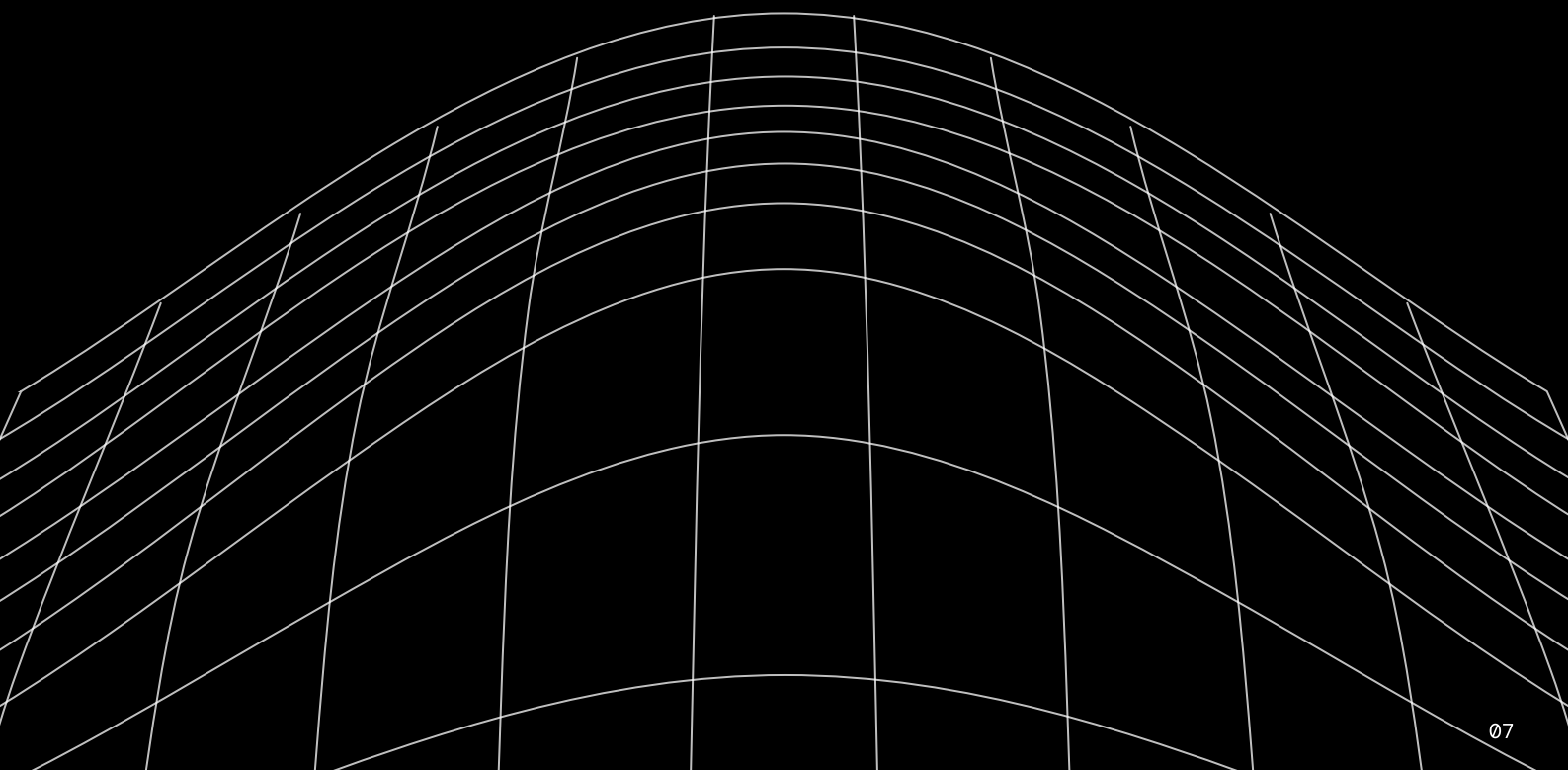
Source: DroneDeploy's State of Reality Capture Report 2024

Managing multiple applications is just double the work, condensing it down to one unified platform cuts out half of our total workload.



Cliff Cole
VDC Director
PENTA Building Group

The **(expensive)** pain points of point solutions



After labor and materials, time is a GC's top cost.

Within the reality capture industry, we continue to see point solutions – disjointed tools that only serve a single team or function – play as platforms.

Software solutions built primarily for the survey team or BIM teams will claim to offer an end-to-end solution, despite not benefitting multiple cross-functional teams, such as subs for work validation, concrete teams for sleeve validation, or owners and builders.



So the inconvenience brought on by gadgety, single-use reality capture tools — managing multiple logins, performing redundant infosec tasks, manually capturing site imagery — have a cumulative effect across an already-stretched workforce.

Multiplied across your projects and people, these tedious hassles create exponential confusion that seeps into all phases of your organization to drag down your bottom line.

Here's why these reality capture tools aren't working for your workforce →

They're disjointed

Mismatched reality capture tools turn your tech stack into an island of misfit toys.

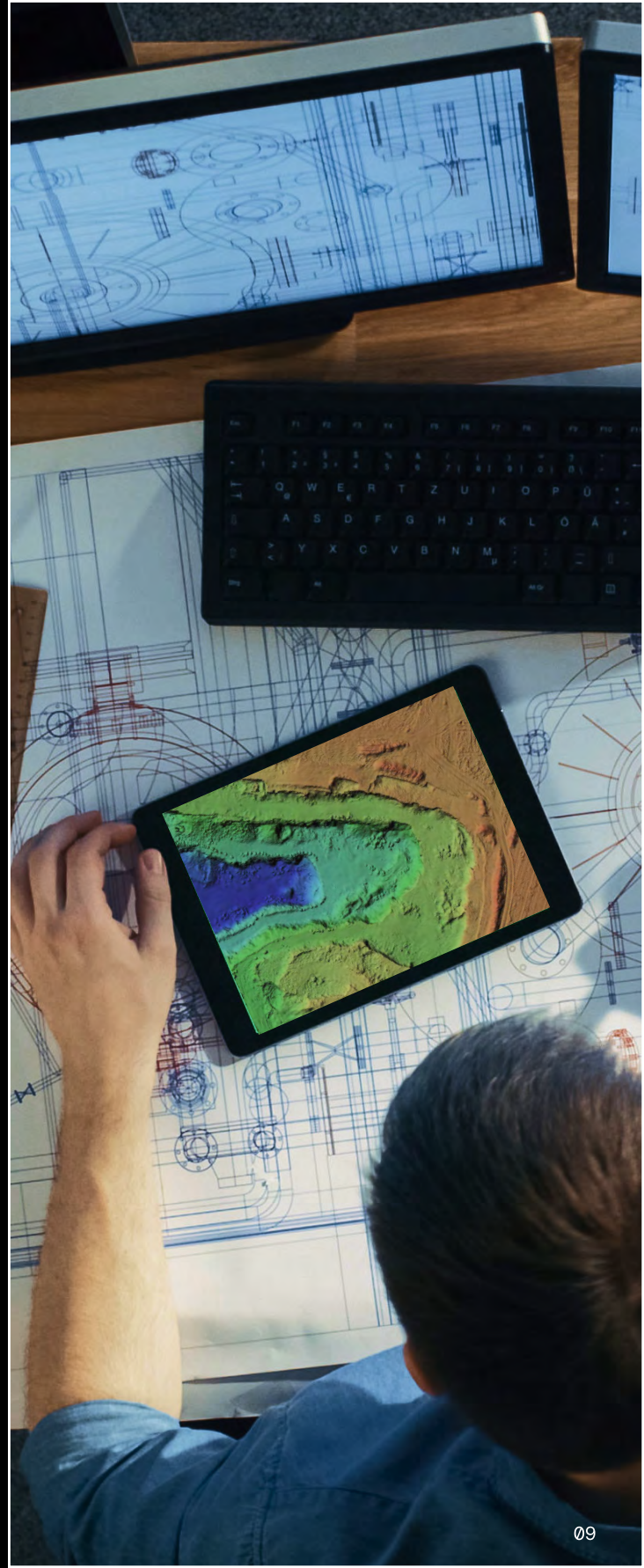
Tools don't talk to each other.

People do.

And when point solutions can only handle limited data types, they create data silos that only speak to themselves. What's more, trying to duct-tape together these one-tool tracks across your reality capture process (e.g. integrating thermals with surveying) often loses the very functionality you bought into in the first place.

For example, we often see teams use one software to capture data, such as the DJI Flight app, another photogrammetry tool to process images into point clouds and meshes, and another tool to share the maps and models with their project teams and clients.

This is why we advocate for the need to move from point solutions that serve one or two use cases to a platform that connects your data across the entire asset lifecycle, from design to close-out.



The more siloed that data is, the more fractured it is. That introduces risk for us.



Bill Bennington
National Quality Manager
PCL Construction

They're manual

Imposing additional manual tasks on your workforce will make them leave you.



When disjointed reality capture tools are completely manual, it takes time away from an already-stretched workforce in ways that delay decisions and drag down morale.

Things like sending a project engineer on a four-hour drive just to strap a camera on for a 10-minute virtual walkthrough. There's also the progress-clogging human error in performing these manual tasks, such as poking a .pdf to tally up installed solar panels or transferring bracketed fingers back and forth on your screen between your buildings and the map's distance scale.

DroneDeploy just works – we save four to five man hours with each 15-minute automated mission.



Chris McKee

Reality Capture Manager

Turner Construction

They're inefficient

Your workforce is already stretched too thin – why weigh them down with yet another tool to get trained on?

Reality capture point solutions create inefficient workflows that are borderline cruel.

Imagine one of your project engineers spending six months becoming proficient with a reality capture tool for one job site, then being forced to retrain on a completely different reality capture tool on their next site – just to do the same work.

This glut of too many tools leads to morale-draining scenarios where your teams spend more time in the trailer watching training videos or managing logins instead of out on the site making decisions and pushing the project forward.



They're dangerous

What starts as visibility into your (and your stakeholders') data can quickly turn into exposure of it.



Multiple point solutions create a dangerous patchwork of data access.

For instance, devices capturing external data demand one set of permissions, while devices designed to track internal progress demands another. Then there's the time investment of building a strong information security and privacy program based on standards like ISO 27001, SOC 2 Type 2 and NIST 800-53.

It's important that we protect ourselves and our clients with security compliance audits of each vendor. But it's difficult when we have to do that for multiple pieces of software.



Albert Zulps
Director of Emerging
Technology
Skanska

They're dumb

Disjointed solutions generate piles of irrelevant and incoherent data.

When reality capture tools aren't unified or automated, they can't make sense of data at scale, and ultimately won't deliver meaningful value to your organization.

It's a case where quantity drowns out quality: that is, when you have more data than you know what to do with, you don't end up doing anything at all. What starts as capturing intelligence eventually feels like hoarding dumb data.

And make no mistake: dumb data drags you down with it, as it forces you to make costly decisions based on stagnant information.



A lot of companies have more data than they can consume and don't know how to leverage that data to bring value.



Bill Bennington
National Quality Manager
PCL Construction

**How to reduce
total cost of
ownership for your
reality capture
tech stack →→→**

Single-use tools only give you the piece of the picture

Point solutions often justify their cost by presenting themselves as a platform. But the fact remains these single-use tools only give you the piece of the picture that they're invested in.



These point solutions capture fragmented realities that only work within a rigid use case: what works for new-build commercial infrastructure won't work for interior retrofits.

You need more than a point solution posing as a platform. You need an integrated ground-to-air solution that coordinates site visibility across your project's lifecycle, from aerial drone imagery to ground-based photos.

[Here's how →](#)

With DroneDeploy,
our field teams can
document our sites
from the air and
ground, know if we're
building to plan and
then see it **all in one**
place without leaving
their offices.



Greg Cornwell

VP of Operations

Juneau Construction

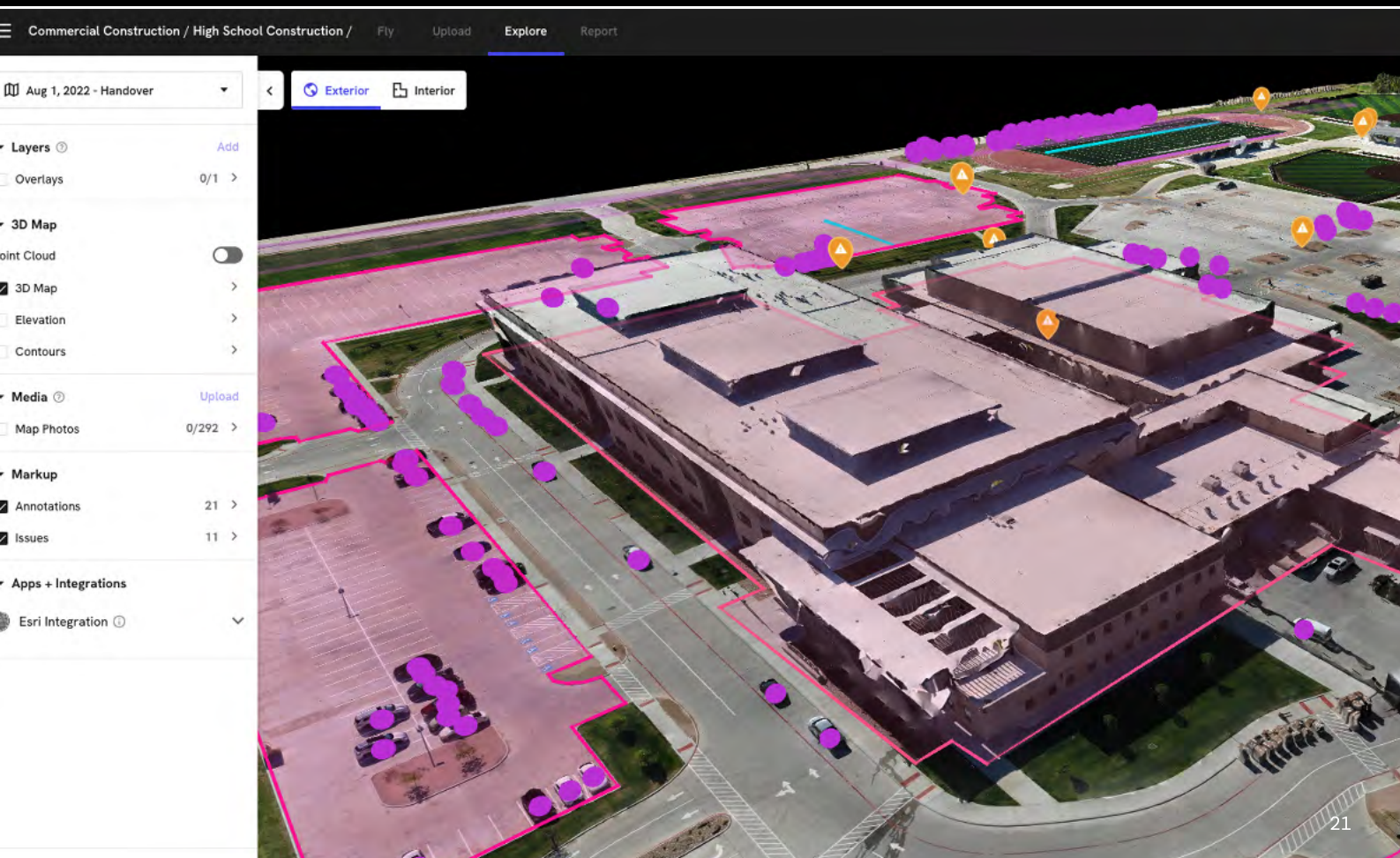
Step 01:

Unify to a single source of reality

Think about all the different sets of eyes working on your site. Now think about how important it is that those eyes see your site from the same perspective.

Establishing a single source of reality gives your field teams the ability to collaborate confidently, and make the right decisions that move your project forward.

It's why unifying your reality capture data from drones, robots, 360 cameras and smartphones gives your people the real-time context they need to solve critical problems that touch multiple phases of your project.



Step 02:

Automate both ground and air

A big benefit of unifying your reality capture is the opportunity to implement more autonomy, both on the ground and in the air.

For example, instead of sending a project engineer on a four-hour drive to handle a 10-minute virtual walkthrough, you can use ground-based robots like Boston Dynamics' Spot or docked drones like the DJI Dock to automate reality capture tasks so that your site data comes to you, instead of you to it.

And for aerial captures, DroneDeploy's Magic AI tools automatically highlight site deviations by analyzing drone ortho maps against your coordinated drawings.



Accuracy automated.



In this Zero to Hero video, see how automation can simplify how you take accurate measurements.

[Watch the video](#)

Step 03:

Level up with AI

Leadership teams everywhere are asking: "what are we doing with AI?" For companies using fragmented point solutions, they can only mutter something about ChatGPT and cross their fingers in the hope that no one calls them out.

For companies who have unified and automated their reality capture with DroneDeploy, they know what they're doing with AI because they're already doing it.

DroneDeploy's AI takes advantage of all the captured data in our RTK network to calibrate the right flight altitude for your specific job site.

And our photogrammetry pipeline ensures high-quality imagery on every flight to give you the best visibility into your site conditions.

What's more, with Stockpile AI, you can see outlines of anything that could be a stockpile, then click on its outline to create an instant - and editable - volume measurement.

You can't erase concrete.



Find out how [Juneau Construction Company](#) sought a transformative concrete solution using drones and artificial intelligence.

[Read the story](#)

We've been spending years just consuming data from left and right and data has just become a problem at this point: **we just don't use it.**

A.I. is here so we can use data and help us in our everyday lives. I'm ecstatic about it, and ready to see it change our industry.



Cole Milberger
VDC Project Manager
Turner Construction



Start your journey towards a unified reality capture tech stack.

In business and in building, you strive to create an environment where the sum of the work performed is greater than individual contributions.

But when you own a bunch of mismatched reality capture tools, the opposite becomes true: that is, the cost of managing each fragmented point solution becomes greater than the sum total of whatever benefits it's supposed to provide.

It's why getting the best outcomes depends on deploying an integrated platform - one that unifies your processes, automates your tasks and leverages artificial intelligence to capture a single source of reality that puts your people in the best position to succeed.

Want to discuss how to get started?

Contact us today. **We'll connect you with someone at your seniority from your industry,** who is already doing this at scale and can take your reality capture program to the next level.

[Contact Us](#)

