

# Lean Up Your Construction Coordination Process with Forge, BIM 360, and PlanGrid

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## Learning Objectives

- Discover where Forge can be used to communicate clashes better to the project team
- Learn how to differentiate where BIM 360 Field starts as an issue resolution log (IRL) instead of just a field log
- Learn how to create simple process maps for checking installed work
- Learn how to establish your own data points for future action on projects

## Description

"If you want the same result, do the same thing. If you want something different, do something different." These words from the speaker's leadership hit home when first heard as a young virtual design and construction (VDC) engineer after grinding through the first coordination project. After hitting road blocks with communicating issues in the coordination process, losing information in too many repositories, wasting time running back and forth to the trailer, and not having the data to learn what to do different, the speaker and team have created smarter workflows and processes to better plan, do, check, and perform their efforts.

## Speaker(s)

Matthew Vanture is an experienced VDC Manager with a demonstrated history of working in the construction industry. He has a strong operations focus and passion for moving what is learned by the 3D pre-construction process to the field. Vanture is a regular guest lecturer at the University of Florida and Georgia Institute of Technology [Georgia Tech] for BIM and VDC as well as a National Science Foundation advisory board member. He graduated with a Bachelor of Science focused in Construction Management from University of Florida

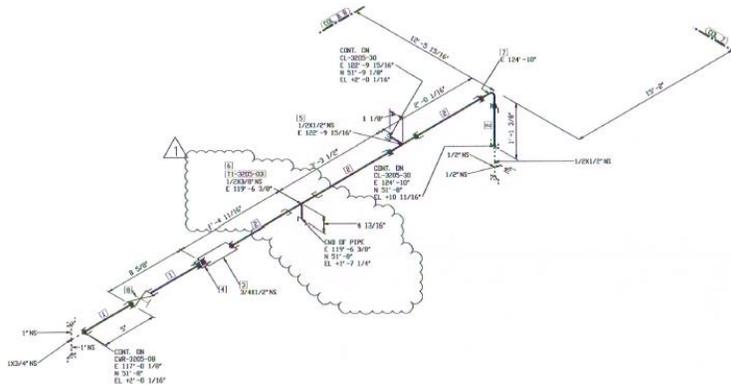
Tyler Davis is a graduate of California State University, Fresno with a Bachelor of Science in Construction Management, building my career at Whiting-Turner in California. Laser focused on continuous growth in construction management, construction technology and BIM/VDC

## Plan: Your different tools for your different jobs

When I started my first construction project after college, I was tasked with reviewing the construction sequence and documents, maximize opportunities to run tasks in parallel and reduce labor. I believe most of us just refer to this as coordination these days. I was handed the below and set off to work.



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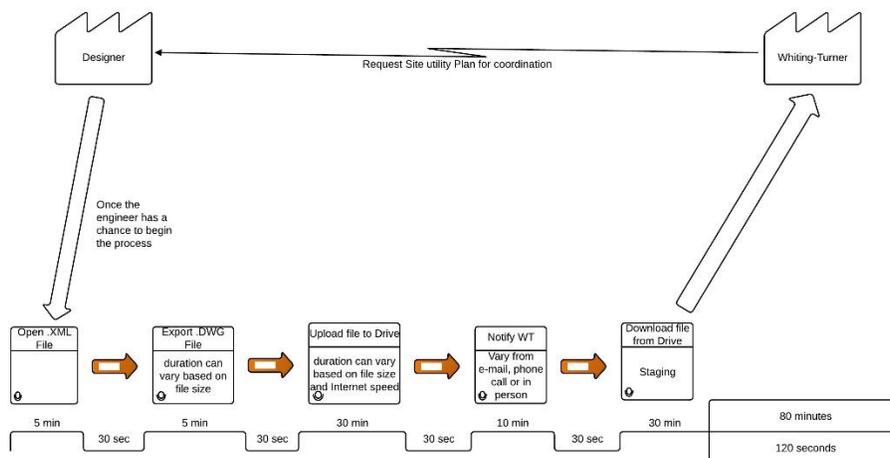


After a few years of trying to learn from my mistakes, I was introduced to process maps and around the same time learned of the [Deming Cycle](#). As I began to collect my different process maps, running them through the Deming Cycle became a paramount part of the process.

## Process Maps

A process map is a planning and management tool that visually describes the flow of work.

### Value Stream Mapping - Civil 3D file Transfer

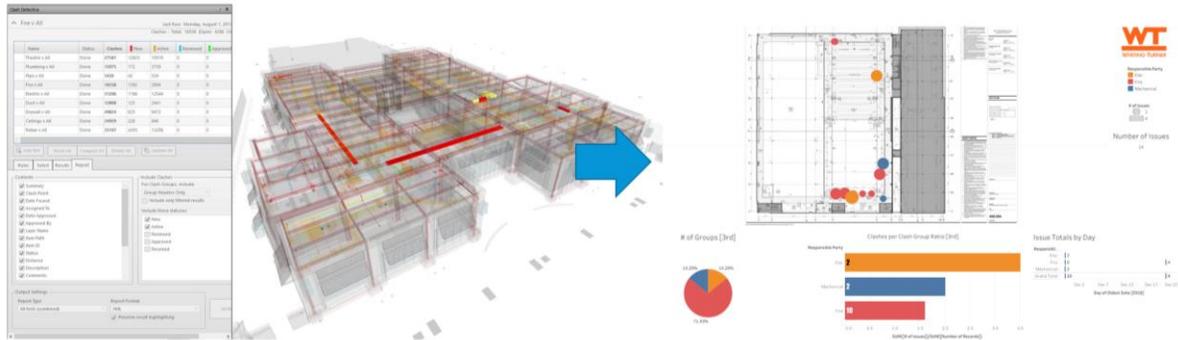


An example of a process map for the purpose of identifying value added tasks

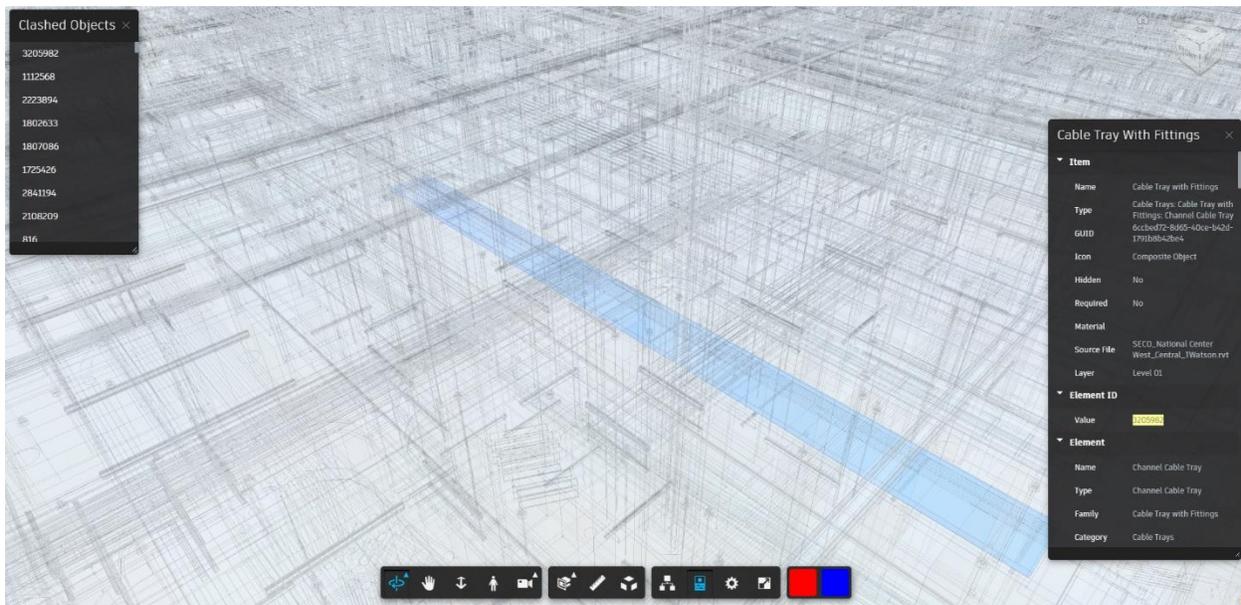
# Do: Forge and Navisworks/Clash Organization

## Clashes by Popular Vote

One of the major issues we found in the coordination process was not enough understanding. We found our laptops and what we did with them proved to be “black boxes” to our teams not involved with our meetings.



Steps toward breaking down the “black box” of coordination

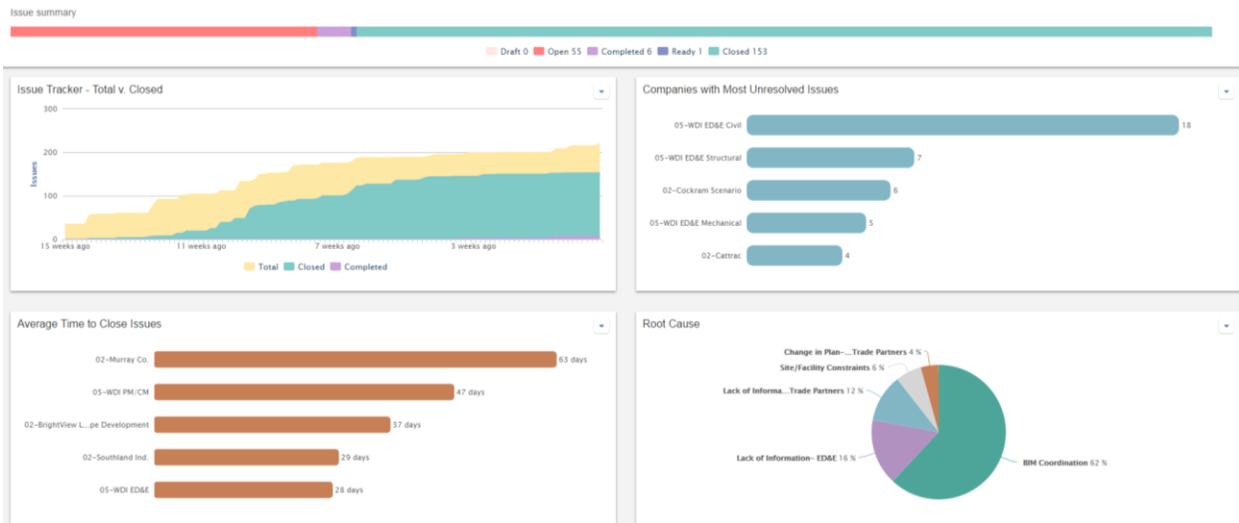


Identifying issues for the team in a simple web viewer like Forge

## Issue Resolution Logs

Issues surface when an error, problem, or an omission is realized, preventing work from progressing and/or causing a deviation from the design intent. Issues are a disruption to the project design and delivery process and result in compounding risk until it is resolved. Providing a system for streamlined communication, resolution, and oversight for all stakeholders is the key to individual, team, and project accountability and predictability.

### Project Overview



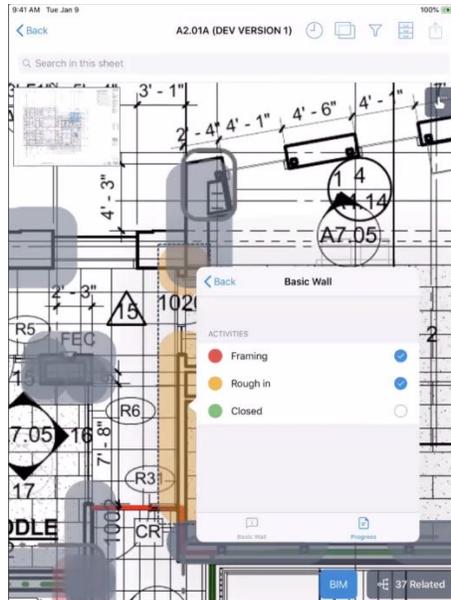
Similar to Forge efforts, bringing transparency to all issues in one spot streamline the process.

## Check: Quantity Surveying?

As an exclusively domestic contractor, we do not come across many quantity surveyors. However, when I finally met one on a project, I learned a great part for completing our feedback loop.

## PlanGrid Continues to Grow

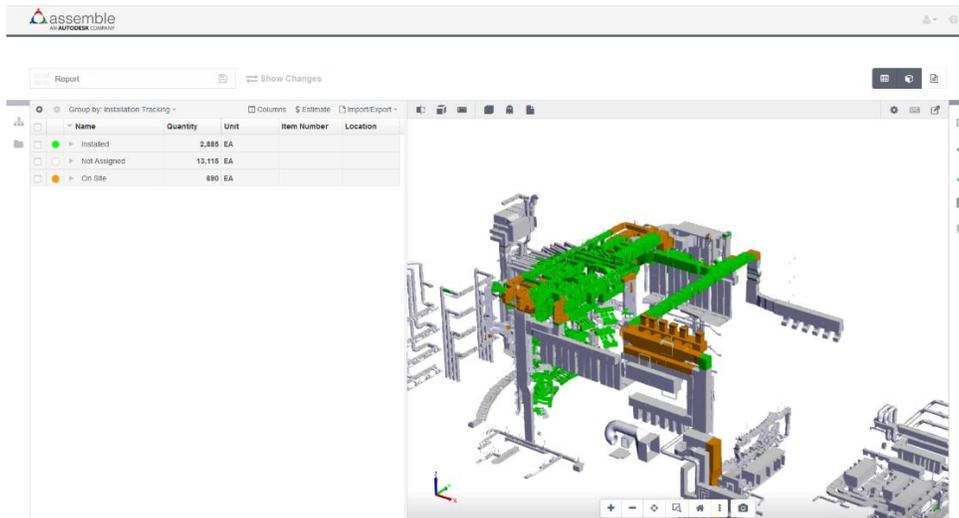
As PlanGrid released the ability to seamlessly push all model data from Revit to PlanGrid, our team reached out to continue to evolve that option – tracking.



An example of an early screen shot of tracking framing in PlanGrid

## Assemble tracking installed Duct

As Assemble introduced their iPad app, this empowers the users to take properties to and from the field.



An example of tracking duct counts on a project

## Act: The data was the goal the whole time

Organizations have always collected data. The difference today is that the tools mentioned above have made it easier to collect a greater volume of data in near real time. The question is, how do we use big data to improve our organizations? Here's an example: what's the most valuable and actionable data your organization produces?

For a company like Netflix, it might be the viewing habits of certain demographics

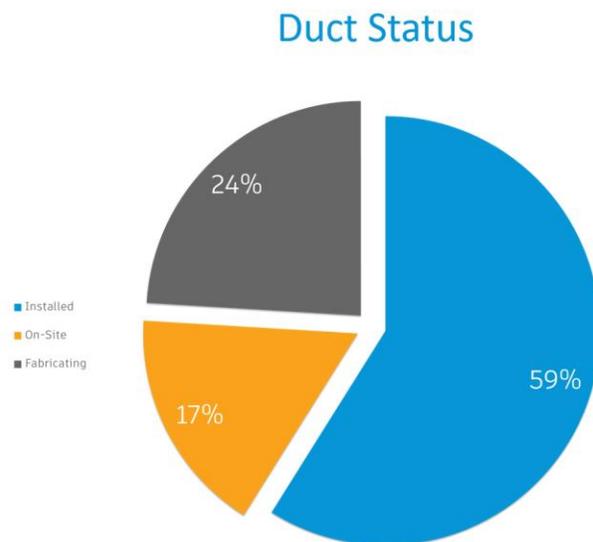
For a restaurant, it might be service ratings from customers

For a baseball team, it might be a pitcher's earned run average

For your organization, it might be units sold, contracts signed, outbound calls made or something similar. Whatever it is, write it down. How do you feel about your number? Should it be higher? Lower? How does it align with your goals and expectations?

### Data

Using Assemble's app, the team has a clear picture where they stand with duct on the project. This assists with billing, man power and progress updates. This was an important unit for this specific team.



An example data taken on a weekly cadence for team progress meeting

Each product can bring the silver bullet to each project. What's important is that you focus on continuous improvement and strive to intergrate our siloed industry to create value for everyone.