



# AUTODESK UNIVERSITY 2015

CS10213

## How Can We Get Them to Do It?! Shifting Behaviors in the Way We Think About Quality

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### Learning Objectives

By the conclusion of this course, you will be able to:

- Adapt effective methods to implement and scale BIM360 Field across your project teams and organization
- Discover each project team member's strengths and weaknesses to leverage a best in class quality program
- Successfully collaborate with subcontractors, architects, and the owner to use BIM360 for issues tracking, checklists, and punchlist with training programs
- Create a culture of quality: maximize productivity and minimize costly mistakes

### Description

This course is designed to change the way we think about the fundamentals of quality and consistency and how to implement and integrate BIM360 Field into a company's culture. We will discuss the importance of early buy-in as a team and firm all the way through the supply chain to subcontractors, architects, and owner. We will present some best practices and procedures that Plan Construction has used to successfully implement BIM360 Field to provide standardization and best practices for quality on our projects. We will also discuss the opportunities and challenges we've faced along the way.

### Your AU Experts

**Wendy Tam** is currently the Operations/Estimating Assistant at Plant Construction Company. She works closely with the Chief Operations Manager to help manage, implement, and provide each project team effective and unique ways to track quality by utilizing BIM360 Field. She also provides training to the project team, architects, subcontractors, and the owner.

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**Victoria Chua** is an Assistant Project Manager at Plant Construction Company and has 7 years of experience in the construction industry. She uses BIM360 Field extensively in the field for punchlist, issues tracking, trade damage, and reporting on various projects. Victoria C. has contributed many innovative ways Plant Construction can and has used the software. Through her contributions, the company has been able to successfully adapt new strategies to track the different stages of a project to ensure quality has been met and recorded.

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## Adapting Effective Methods to Implement BIM360 Field

### What do you ultimately want to achieve and get from BIM360 Field?

Before figuring out a successful method on how to implement BIM360 Field, you first need to determine what it is you want achieve. Do you want to achieve a better QA/QC system? Do you want to integrate knowledge within your project team? Do you want to share project data with upper management? Do you want to see consistency on all your projects?

#### ***Company Goals and Standards***

It is important to distinguish the difference between standards and goals. Company standards should be what you require all projects to do using BIM360 Field. Company goals are what you want all projects to strive towards in order to enhance better quality and control.

#### **EXAMPLE: Plant Construction Company Standards:**

1. Punchlist
2. Daily Field Reports
3. Safety Inspections
4. PM Closeout Checklist

#### **EXAMPLE: Plant Construction Company Goals:**

1. Proof of Work in Place
2. Elevator Readiness
3. Safety Toolbox Meeting
4. Trade Damage

#### ***Start Small and Increase***

Decide on a few company-wide standards that you want to start with. Remember, you are trying to implement a program that will work with your project managers, superintendents, architects, and owners. Do not try to implement more than a few at a time because it will become overwhelming if your company has had little to no exposure to BIM360 Field. Keep it simple.

## Implementing BIM360 Field

Introducing BIM360 Field begins with building a dedicated team of “champions” that will learn the ins and outs and train others. Your team should consist of project managers, superintendents, a dedicated administrator support person, and an executive sponsor. Having the opinions and ideas from both the field and management side is essential to get an overall picture of what QA/QC items should be tracked and how.

#### ***Dedicated “Champions” Team***

Your champions can help come up with issues and checklists to track. These “ideas” will fundamental enhance the uses for BIM360 Field.

1. What’s important to the project management team that they want to track? What’s important to the field team that they want track? What do your construction managers want to be able to oversee on their projects?



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2. How often should these items be tracked? How often should reports be sent to project executives or construction managers?
3. Who will be in charge creating issues and completing checklists?

## **Training and Mentoring Programs**

When your “champions” have been trained to use certain checklists and issues, they should help mentor others on their project team. You and/or operations team will be overseeing the overall quality of the training of the champions and project team.

Eventually, when projects are done and team members have moved onto another team, your “champions” will be able to take what they’ve learned and teach their new team members.

## ***One Project at a Time***

Pick a project that is about to start or is in its early stage to begin the implementation with the standards and procedures you have set. Make individual team members responsible to do certain things, such as having the assistant project manager run reports and having the superintendent do daily field reports. Consistency is the key.

This will help structure the project team to be involved with BIM360 Field and help them understand what you expect them to use BIM360 Field for.

## **Utilizing a Project Team Member’s Strengths and Weaknesses**

### **Working With Your Team Not Against**

We live in a technological savvy world with different tools and gadgets that are supposed to make our lives easier. However, not everyone is as technological savvy and what one person might think is easy and life changing might actually impede someone else.

### ***Superintendents***

Changing the habits of your superintendent begins with changing their mindset on how they want to track and record things. Some will embrace having an iPad/tablet to do checklists and track issues on a project and having the ability to pull up data in their hands. Others might be intimidated because they have always used paper and pen to track things. Here are some ways to work with your superintendent.

- One on one training
- Using the speak recognition function
- Simplified cheat sheets with step by step instructions
- Having an APM/PM review issues and checklists
- Identify specific project challenges that BIM360 Field can help solve
- Let them know using BIM360 Field will save time and headaches down the road because all data is saved and searchable

### ***Assistant Project Managers/Project Managers***

The management team’s strength lies with having QA/QC ideas that they want to track electronically for their project. However, they might not know how to convert these ideas or



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know the best method to track them. You/operations team should convert their ideas and help them come up with a checklist or issue type then show them how to use it.

- Using issues vs. checklists
- Setting up drawings, punchlist, and photos
- Using tasks and barcodes
- Exposure in the field and mentor training

## ***Construction Managers/Upper Management***

Construction managers and upper management want the ability to oversee their projects. They want the ability to harvest the data and conserve their time at the same time. Set up automated reports for them.

- Issues and inspections
- Back charges
- Meetings
- Ability to manage owner's expectations

## **Successfully Collaborating with Subcontractors, Architect, and the Owner**

### ***Sharing Information with Everyone***

Collaborating with subcontractors, architect, and the Owner is now easier than ever. Whether it's tracking issues or assigning checklists, data is now centralized in one program that everyone can access by signing in or running a report.

### **Early Buy-In and On-Site Project Team Training**

Expressing interest to collaborate with your extended team is vital to set expectations and gauge what kind of training is needed. Create unique and specialized training programs for each and meet with them before the project begins or before the start of a major task (i.e. punchlist or SWPPP).

Create "cheat sheets" for the subcontractors, architects, and Owner. If they forget what you have taught them, they can refer back to the cheat sheets to help them navigate to what they want to find or the how to's. Tailoring an in-person training session is crucial and offering over the phone assistance when they have questions is important.

Below are the benefits that they can expect if they choose to collaborate using BIM360 Field.

### ***Subcontractors***

Give them the ability to track their own assigned issues, checklists, and tasks. This will also hold them accountable for incomplete work without excuses because everything is tracked and recorded.

- Faster communication to general contractor on when work is complete
- Helps subcontractor's management team better manage their field workers
- Tractable results

### ***Architect***

Eliminate PDF and excel punchlists. Eliminate double entries. Save time and money.



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- Ability to manage and view all punchlist items
- Issues can have photos, a location, and recordable status changes
- Guarantees that when an item is closed, it was approved by the architect

### **Owner**

Having an open book policy and building trust.

- Managing the project's expectations
- Receiving report updates

## **Create a Culture of Quality: Maximize Productivity Across the Board and Minimize Costly Mistakes**

### **Determining & Balancing Responsibilities**

Figure out if certain tasks should be done by everyone or a particular individual on the team and how often they should be done. Hold the team or individual accountable for their responsible tasks.

#### ***Avoid Overlapping Roles***

If the jobsite superintendent is in charge of doing the daily field reports for the entire project, the assistant project manager should not be doing that checklist. This will help avoid double-ups and save valuable time that could be allocated to something else on the project. Work smarter not harder.

- QA/QC matrix chart (a chart to show who is responsible for what checklists/tasks/issues)
- Assigning checklists/issues to individuals
- Have an assistant project manager review all draft issues before changing the status

### **Proactive Quality Control and Setting the Standards**

Consistency is vital to maintaining quality and staying in control. Be proactive about checking in with the project teams to make sure they are getting the proper training they need and make sure the company standard checklists/issues are being done. Getting individuals used to this on each and every project will build good habit and set their expectations. They will eventually embody these standards.

### **Construction is an Inherently Risky Business**

The success of a company rests on its people, its leaders, and on the corporate culture. The ability to analyze, quantify, and track risk helps reduce and stay in control of a project.

