Field Collaboration with BIM360 and PlanGrid

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Group Product Manager, Autodesk

CONNECT & CONSTRUCT SUMMIT
Chelsey Tanaka

Group Product Manager, Field Collaboration

- Joined Autodesk via the PlanGrid acquisition
- 4 years at PlanGrid/ Autodesk
- Co-lead the Field group with Tom Alterman
  - Includes the following PlanGrid and BIM360 Field Management products:
    - Issues/ Tasks
    - Checklists/ Daily logs/ Field Reports
    - Photos & Videos
    - Production tracking
- Prior to Autodesk, built SaaS software for utilities
Agenda

• Introductions
• BIM360 and PlanGrid approaches
• Integration possibilities
• Our vision
The team

Phill and Sriram
Values award: Focus on real people, real work

Members of Issues and SiteVision teams
Site visit with Clayco in St. Louis

Emily and Nik
Brainstorming session for roadmap
Who’s in the room?

- Currently use BIM360 for field collaboration activities
- Currently use PlanGrid for field collaboration activities
- Use both BIM360 and PlanGrid for field collaboration activities
- Don’t currently use BIM360 or PlanGrid for these activities, but are interested in using one or both
What do we mean by Field Collaboration?

• Activities that happen primarily on the jobsite (trailer or field)
• Involve collecting info from the field, sharing it, and often taking action on it
• Goal: Build it right, build it well, build it safely
• Some of these activities:
  o Issue tracking
  o QA/QC
  o Safety
  o Progress photos
  o Annotating plans and project files
  o RFIs
BIM360 and PlanGrid have many parallel pieces of functionality…

<table>
<thead>
<tr>
<th>BIM360 modules/ features</th>
<th>PlanGrid features</th>
</tr>
</thead>
<tbody>
<tr>
<td>Document Management</td>
<td>Plans</td>
</tr>
<tr>
<td></td>
<td>Project Files</td>
</tr>
<tr>
<td>Field Management</td>
<td>Checklists</td>
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<td></td>
<td>Daily logs</td>
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<tr>
<td></td>
<td>Issues</td>
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<tr>
<td>Project Management</td>
<td>RFIs</td>
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</tbody>
</table>
...but the products take different approaches

Standardizing tools and processes across projects

Empowering field to use tools in optimal way for them
Standardizing tools and processes across projects

Characteristics
• Tools and processes determined at HQ and rolled out to projects
• Extensive tool configuration; limited ability to change by field teams
• Complex permissions model

Benefits
• Enables data aggregation and analysis across projects
• Data helps management see trends and challenges
• Field staff have consistent experience going from one site to another
Empowering field to use tools in optimal way for them

Characteristics
• Tools are simple and intuitive, with limited configuration options
• Flexibility of tools encourages field staff to use tools to meet their needs
• Limited permissions to streamline collaboration

Benefits
• Field teams can adapt tools to meet the needs of their team and project
• Field teams can setup and manage projects themselves
• Adoption is quicker even without training
Case study 1: Checklists and Field Reports

- Checklists are the BIM360 tool for collecting data via structured forms
- Field Reports are the PlanGrid tool for collecting data via PDF forms
- Both are used for many of the same use cases:
  - QA/QC checklists
  - Safety checklists
  - Job hazard analysis
  - Commissioning checklists
  - etc.
BIM360 Checklists: Configuring checklist templates at account level
# BIM360 Checklists: Syncing account-level checklists to projects

## Field Management

<table>
<thead>
<tr>
<th>Title</th>
<th>Type</th>
<th>Updated</th>
<th>Instances</th>
<th>Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Air handling commissioning checklist</td>
<td>Commissioning</td>
<td>Nov 16</td>
<td>0</td>
<td>14</td>
</tr>
<tr>
<td>Concrete Pre-Pour Checklist</td>
<td>Quality</td>
<td>Nov 16</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Field Report for S&amp;G</td>
<td>Safety</td>
<td>Nov 28, 2018</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Kitchen Casework QA/QC checklist</td>
<td>Quality</td>
<td>Nov 16</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>QA/QC Checklist</td>
<td>Quality</td>
<td>Nov 27, 2018</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Weekly Safety Audit</td>
<td>Quality</td>
<td>Nov 16</td>
<td>0</td>
<td>2</td>
</tr>
</tbody>
</table>

Showing 1 - 6 of 6
BIM360 Checklists: Configuring structured data form
### PlanGrid Field Reports: Uploading a PDF form

**Weekly work safety observations**

**Site code:** 123-009872  
**Date:** Nov 16, 2019

**Site name:** 154 Hillside Ave Tower (test project)

**Site duration:**

| Days without an accident | 52 |

**Are previous deviations fixed?**

| Yes | No |

**Participants:**

| Calibration |

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**Categorization**

| 1 Working habits  
• Unsafe behavior  
• PPE | RIGHT | WRONG | Deviations |
|---|---|---|---|
| 3 | 2 | 1. Scaffolding was not properly covered  
2. Wider not wearing protective eyewear |

| 2 Scaffolding, walkways and ladders | 6 | 7 |

| 3 Machinery and equipment | 2 | 2 |

| 4 Fall protection | 1 | 6 |

| 5 Electricity and lightning | | | |

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**References**

- Add references

**Notes**

- Add additional details
PlanGrid Field Reports: Filling out form on mobile
PlanGrid Field Reports: Sending PDF of report via email
Case study 2: Issues and Tasks

• Issues are a feature in BIM360 for tracking deficiencies across many phases of the project
• Tasks are a feature in PlanGrid for tracking units of work
• Some of the use cases for these products:
  o Ongoing deficiency tracking
  o Pre-punch
  o Punchlist
  o Items to address from QA/QC or safety checklist
BIM360 Issues: Configuring custom attributes
BIM360 Issues: Configuring custom attributes
PlanGrid Tasks: Create new stamp from field
PlanGrid Tasks: Create new stamp from field
PlanGrid Tasks: Visible stamp code + color + status
BIM360 and PlanGrid specialize in different approaches, but they can be brought together

Standardizing tools and processes across projects

Empowering field to use tools in optimal way for them
Integration possibilities

• Determine which modules in which product best meet your needs, then use API integrations to bring them together

• Examples:
  
  o Sync PlanGrid issues to BIM360
  
  o Sync BIM360 RFIs to PlanGrid Docs
Visit this url to play video: https://youtu.be/CRuvlws_Pdo
Integration possibilities

Issue created in PlanGrid in field ➔ Issue synced to BIM360 ➔ Select issues spawn RFIs ➔ RFI workflow completed in BIM360 ➔ PDF of completed RFI stored in BIM360 Docs

PDF synced with PlanGrid Docs ➔ RFI doc hyperlinked to drawings

Activities in PlanGrid

Activities in BIM360
Agenda

- Introductions
- BIM360 and PlanGrid approaches
- Integration possibilities
- Our vision
We’re working hard to bridge the gap between these two approaches

- Standardizing tools and processes across projects
- Empowering field to use tools in optimal way for them
Our customers are counting on us to solve this problem

• Clear feedback from customers is that they need both:
  o Standardization of data and processes to drive insights
  o Adoption in the field with intuitive, flexible and easy-to-use tools
What could an integrated approach to Forms look like?

<table>
<thead>
<tr>
<th>Standardization</th>
<th>Flexibility and ease-of-use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Structured data forms configured at account level and pushed to projects</td>
<td>• Library of form templates to start from</td>
</tr>
<tr>
<td></td>
<td>• Upload paper form and automatically create structured data template</td>
</tr>
<tr>
<td>Ability to specify pre-defined workflow for a form to go through</td>
<td>Creators can add participants to the pre-defined workflow</td>
</tr>
<tr>
<td>All form data available via API and used in custom reports</td>
<td>Most common reports can be generated and sent from the field</td>
</tr>
</tbody>
</table>
Our background with both BIM360 and PlanGrid products gives us a unique perspective

- We learn from the research, design, product and engineering expertise of both sides in order to develop an integrated approach
- We pay attention to the needs of different types of companies and different types of users within companies
- We bring best of breed features together