

CS500161

The Future of Visual Progress Tracking and Documentation in Construction

Alix Cohen
Autodesk

Cliff Cole
The PENTA Building Group

Learning Objectives

- Why Progress Tracking matters and how it can help to keep your project on schedule and on budget
- What does the ProgressTracking tool look like in Autodesk Build today
- Progress Tracking use cases on construction projects
- What is the future of visual Progress Tracking at Autodesk and how that might support your construction workflows
- Where to go to get started with Progress Tracking on your projects

Description

Having a consistent way to track completed work is not only necessary for subcontractors to get paid, but also to provide visibility of the progress made. Tracking work progress in detail though is easier said than done. What is the best place to log in progress? How can you ensure to maintain progress data? How can you make sure you can analyze the progress data to see if you're falling behind on something? Construction technology can make this easier with Photos and Progress Tracking workflows.

Speakers

Alix Cohen
Product Manager, Progress Tracking at Autodesk

Cliff Cole
Director of Virtual Design and Construction at The PENTA Building Group

Why Progress Tracking Matters

Progress Tracking is an essential part of keeping projects on schedule and under budget. It requires the collaboration of many people on site and there are many different ways that teams are trying to track progress today. Many of existing Progress Tracking methods though are time-consuming, error prone, not accurate enough and still require a lot of effort.

These methods can be:

- Spreadsheets
- Whiteboards
- Photos
- Bluebeam or highlighting on blueprints

Progress Tracking in Autodesk Build

Progress Tracking enables you to track installation activities directly on sheets - as a % complete or quantity of materials installed.

Progress Tracking Features in Autodesk Build:

- Customization – Configuring objects, including names and installation activities.
- Visualization – Creating lines and shapes on sheets to represent the work you need to do in a familiar and visual way.
- Updating progress on mobile – Updating progress across an area or floor with a single swipe.
- Monitoring & exporting progress – Tracking the installation progress on a project, getting insights about the % complete and quantity installed.



Tracking progress directly on a sheet

Benefits of Progress Tracking

Short Term



Time consuming, manual processes eliminated - quick and easy tracking on sheets



Team members always up-to-date on work progress



Improved collaboration between field and office



Accurate progress data that can be used for reporting

Long Term



Visualized workflows at any moment in time of a project's lifecycle



Seamless end to end productivity tracking

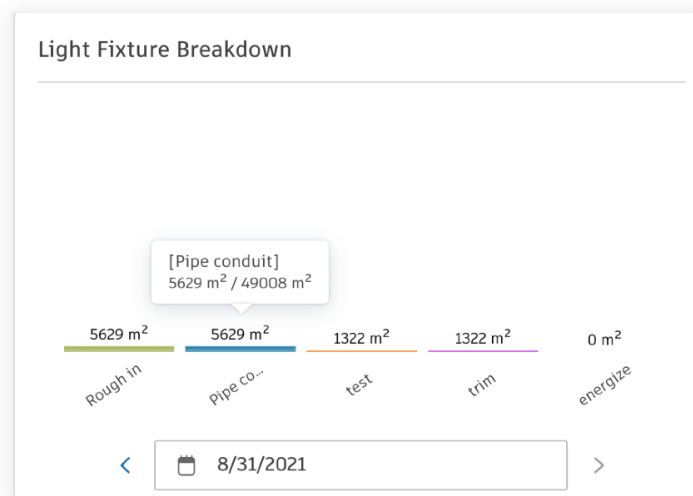


Accurate progress data that can be used for analyzing productivity

Progress Tracking Use Cases on Construction Projects

Production Tracking

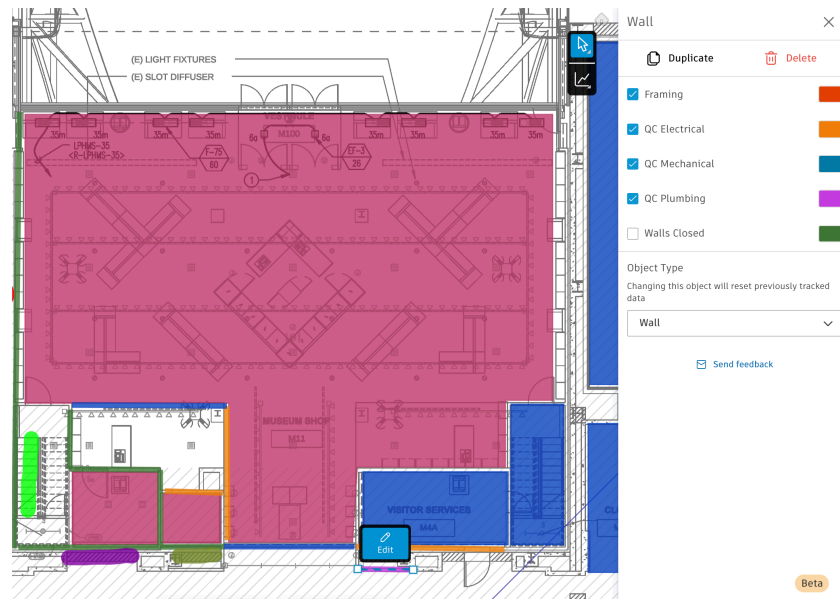
- Primary use case for subcontractors
- Goal: quickly understand how much of a material has been installed for a given location
- Examples include: HVAC, AV displays, electric, drywall, concrete work
- Benefit: quick snapshot of accurate work progress + ability to calculate productivity by comparing preconstruction data to what's happening on the jobsite



Snapshot of light fixture progress status

Phased Work Tracking

- Primary use case for general contractors
- Goal: track the sequencing of trades and activities in an area
- Benefit: tracking work to understand the work progress done by trades and collecting work needed for commissioning

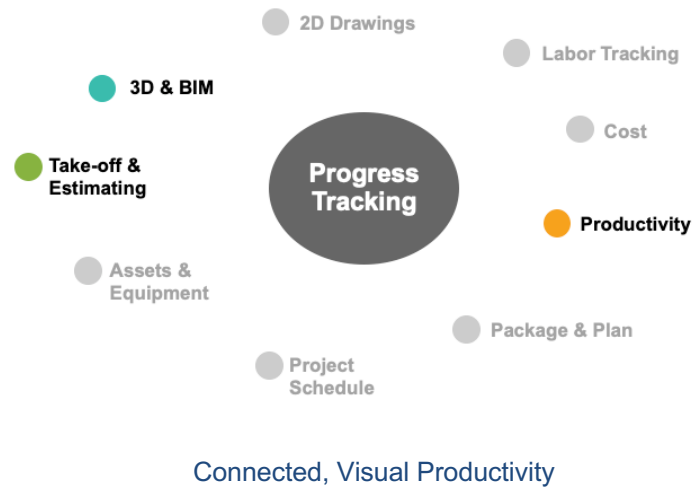


Work tracking for a given area

Case Study: PENTA

- Previously, teams at Penta were trying to track progress via spreadsheets and photos but these methods were not efficient enough.
- They needed a more collaborative, digital process > decided to try Progress Tracking in Autodesk Build.
- They are currently using the tool to track door framework and electrical work on an event center construction project in California.
- They are also tracking floor carpet installation on a hotel room renovation project in Las Vegas.
- They see a lot of benefits of Progress Tracking – field teams find it very easy to update progress markups on the sheets and the office teams are up-to-date at all times on the work status.

The Future of Visual Progress Tracking at Autodesk



There are several opportunities to further develop Progress Tracking capabilities at Autodesk. A few high potential examples include:

- Phased work & quality tracking
- More accurate visualizations
- Progress Tracking starting from estimates
- Leveraging the power of BIM

Conclusion

Benefits of Progress Tracking for your organization:

- Up-to-date, visual tracking of work progress status
- Improved collaboration between field and office
- Accurate and exportable progress data ready to be used for reporting

Progress Tracking is available to all Autodesk Build customers.

Resources:

- [Short Progress Tracking how-to videos](#)
- [Learn ACC Progress Tracking video course](#)
- [Progress Tracking Helpsite](#)
- Use cases one-pager

Progress Tracking – Use Cases

Here are a few examples of use cases we have seen from contractors who use Progress Tracking. What will you use Progress Tracking for?

| Use Case | Tracked Objects | Tracked Activities | Teams Who Use It | Why It's Useful |
|----------------------|-----------------|---|---|---|
| Drywall | Ceiling | Framing Drywall Taping | Subcontractors | Get detailed measurements on the % of work complete |
| | Wall | Top Tracking Wall Studs Bottom Track Interior Drywall Tape | | |
| Electric | Light Fixture | Rough In Pipe Conduit Test Trim Ready to Energize Energized | Subcontractors | Get detailed data on how much of each object has been completed. |
| | Conduit Rack | Deck Inserts Hangers Conduit Wire | | |
| Phased Work Tracking | Wall | Framing QC Electrical QC Mechanical QC Plumbing Walls Closed | General Contractors, Owners | Understand the status of work by phase or location. |
| Concrete Masonry | Gravity Column | Laid out Erected Grouted Aligned | Subcontractors | Track progress of concrete work |
| HVAC | VAV Box | Rough In / Install Pull Wire Mounting New Device Wiring & Terminating Start Up Commissioning | Subcontractors | Get detailed data on how much of each object has been completed. |
| Commissioning | Locks | Ordered Arrived Installed | General Contractors, Subcontractors, Owners | Real time data on the status of installations Track progression of window installation on different floors |