Building a Construction Technology Stack

Jared Coelho – Industry Manager - Construction Technology, Autodesk

Josh Cheney – Industry Manager - Construction Technology, Autodesk

Randy Nolan – Executive VP, Morpheus Technology Group

Shobhit Baadkar – Managing Principal, TITAN AEC

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Non-GAAP Financial Measures

These presentations include certain non-GAAP financial measures. Please see the section entitled “Reconciliation of GAAP Financial Measures to non-GAAP Financial Measures” in the Appendices attached to the presentations for an explanation of management’s use of these measures and a reconciliation of the most directly comparable GAAP financial measures.
Deliver a comprehensive, integrated platform that seamlessly connects the office, the trailer and the field.
Meet the speakers

Jared Coelho  
Industry Manager  
Construction Technology  
Autodesk

Josh Cheney  
Industry Manager  
Construction Technology  
Autodesk

Randy Nolan  
Executive VP  
Morpheus Technology Group

Shobhit Baadkar  
Managing Principal  
TITAN AEC
Agenda

- State of the industry
- Best Practices
- Expert Panel Discussion
- Q&A
- Closing Remarks
13,000 BUILDINGS A DAY

30x AROUND THE EARTH / PER YEAR
MORE IS INEVITABLE
LESS IS A REALITY
20% WORKFORCE RETIRING
Manufacturing productivity

Total economy productivity

Construction productivity

Sources: OECD, WIOD, GGCD; World Bank, BEA, BLS; National statistical agencies of Turkey, Malaysia, and Singapore; Rosstat; McKinsey Global Institute analysis (2014)
The con-tech revolution in here...

Venture Investment in Private Construction Technology Companies

Source: CREtech
Where we are & where we’re going

- **REACTIVE**: Responds to events that already happened.
- **PROACTIVE**: Actively seeks the identification of risks through analysis of the organizations processes.
- **PREDICTIVE**: Analyzes system processes and environment to identify potential/future problems.
Where am I now?

• What does our workforce look like?
• What technology do we currently have?
• How “mature” is my approach to technology? Where do we have vs lack strong digital competencies within the org?
• What data is important to us and are we capturing it?
Where am I now?

Autodesk Construction Health Check Tool

See how over 200 construction industry professionals to understand how they measure success.
You need a plan...

- Create technology focused executive position
- Have a 5-10 year digital strategy
- Standardize process for innovation
- Identify targeted industry workflows
- Find tech that has short time to value
- Look for open APIs
Implementation best-practices

• Start Small
• Have a tech champion
• Pilot with a diverse group of stakeholders
• Think about the end-user
• Set goals and iterate
• Listen to feedback
Digitize to Drive Improvement

1. Digitize Construction Workflows
2. Create Critical Mass of Data
3. Measure Key Performance Indicators
4. Extract Actionable Insights
5. Predict Problems Early & Take Action
6. Drive Continuous Improvement
Why have an integrated tech stack?

“Whether it’s a GC, drywall sub or electrical contractor, a single trade alone can’t construct a building. The interoperability we’re providing between PlanGrid and other solutions simply mimics the teamwork the industry expects during complex projects. The industry shouldn’t expect any less of its technology.”

Bill Smith, President of Field Operations PlanGrid
Expert Panel

Josh Cheney
Industry Manager
Construction Technology
Autodesk

Randy Nolan
Executive VP
Morpheus Technology Group

Shobhit Baadkar
Managing Principal
TITAN AEC
Q&A
Final Thoughts...
Finding and Retaining Talent
Wasted Time, Labor and Materials
Intense Competition
Analog and Disconnected Processes
Autodesk Construction Portfolio

DESIGN
- Design
- Design Coordination

PRECONSTRUCTION
- Quantity Takeoff
- Estimating
- Bid Management
- Scheduling
- Project Management (RFIs, Submittals)
- Cost (Budget, Contract Mgmt.)
- Field Collaboration (Plans, Specs, BIM in the Field)

CONSTRUCTION
- Quality & Safety
- Turnover & Operations

OPERATIONS
- Document Management
- BuildingConnected Network
- Predictive Analytics & Risk Management

Legend:
- Autodesk assemble
- Autodesk BUILDINGConnected
- Autodesk BIM 360
- Autodesk PlanGrid
Autodesk Construction Partners

eVolveMEP
EarthCam
EGNYTE
eSUB
STRATUS
Leica Geosystems
HoloBuilder
MANUFACON
PeerAssist
KitConnect
ProjectReady
Pype
RAKEN
Reconstruct
REDTEAM
RiskCast
SIGMA Estimates
SMARTVID.IO
RMIX
RHUMBIX
STSTRUCTION SITE
TOPCON
triax
victaulic