

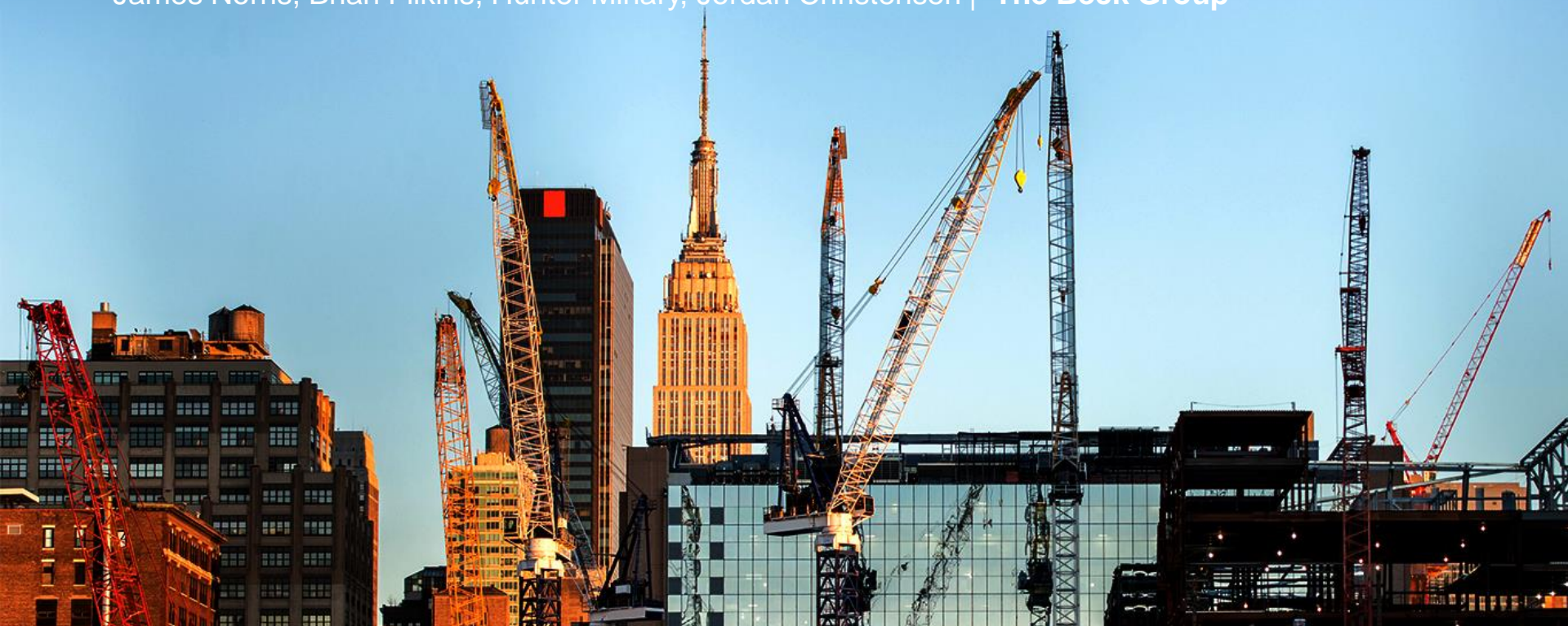
PROCORE[®]



ConstructionOS

The Art of Implementation

James Norris, Brian Filkins, Hunter Minary, Jordan Christensen | **The Beck Group**



Presenters



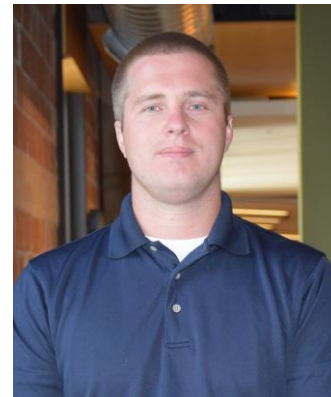
James Norris
*Director of Virtual Building,
The Beck Group*



Brian Filkins
*Operational Technology
Manager,
The Beck Group*



Hunter Minary
*Asst. Operational
Technology Manager,
The Beck Group*



Jordan Christensen
*DFW Regional
Scheduler,
The Beck Group*

WE ARE

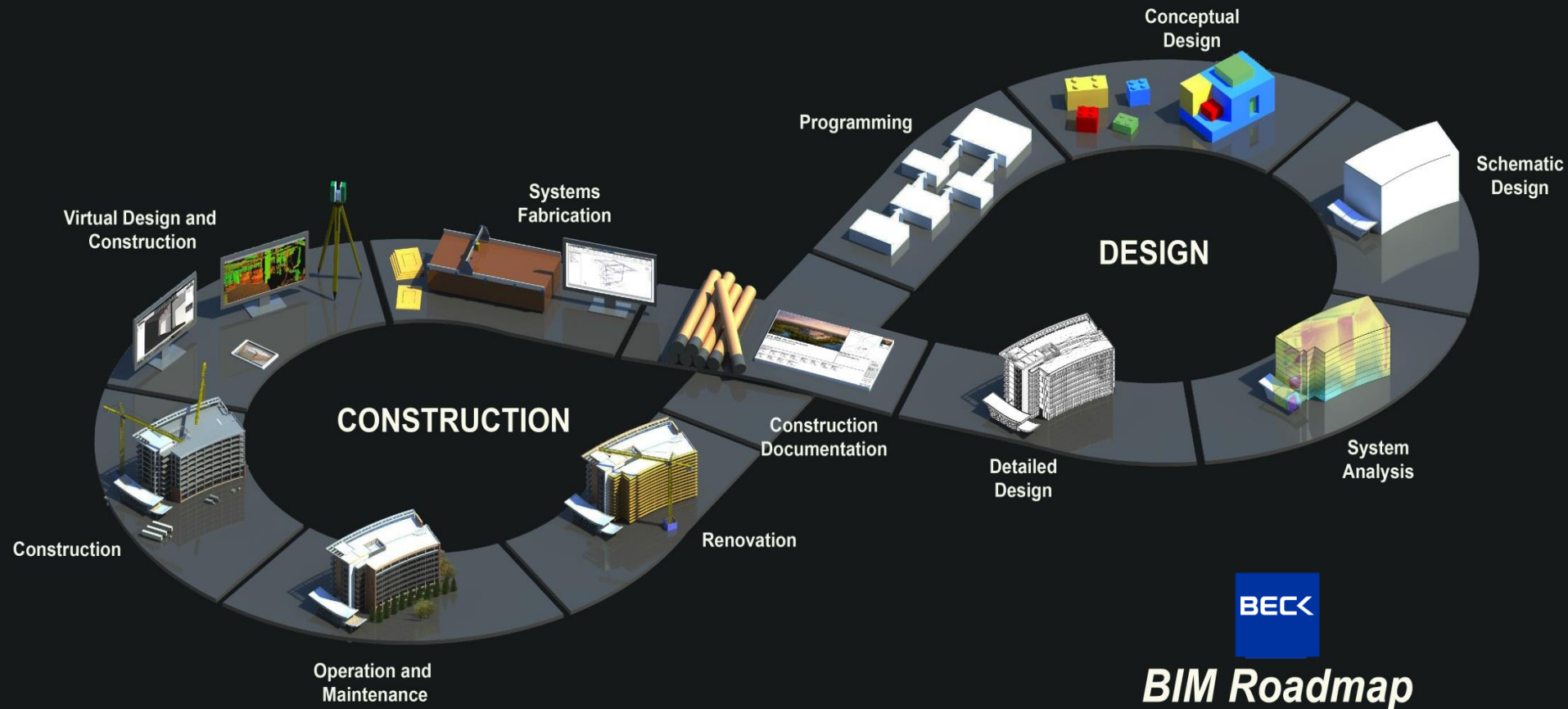
DESIGNERS
BUILDERS
SUSTAINABILITY EXPERTS
TECHNOLOGY EXPERTS

- 1912 FOUNDED AS CENTRAL CONTRACTING CO.
- 1924 HEADQUARTERS MOVES TO DALLAS
- 1939 ATLANTA OFFICE
- 1946 HENRY C. BECK COMPANY
- 1975 SAN ANTONIO OFFICE
- 1981 HCB CONTRACTORS
- 1992 MEXICO OFFICE & TAMPA OFFICE
- 1998 DENVER OFFICE
- 1999 MERGED WITH URBAN ARCHITECTURE**
- 1999 THE BECK GROUP
- 1999 AUSTIN OFFICE
- 2002 FORT WORTH OFFICE

**ATLANTA
AUSTIN
DALLAS
DENVER
FORT WORTH
TAMPA
& MEXICO CITY**



Today or Tomorrow, Data can be Applied in an Infinite Way



Beck Values

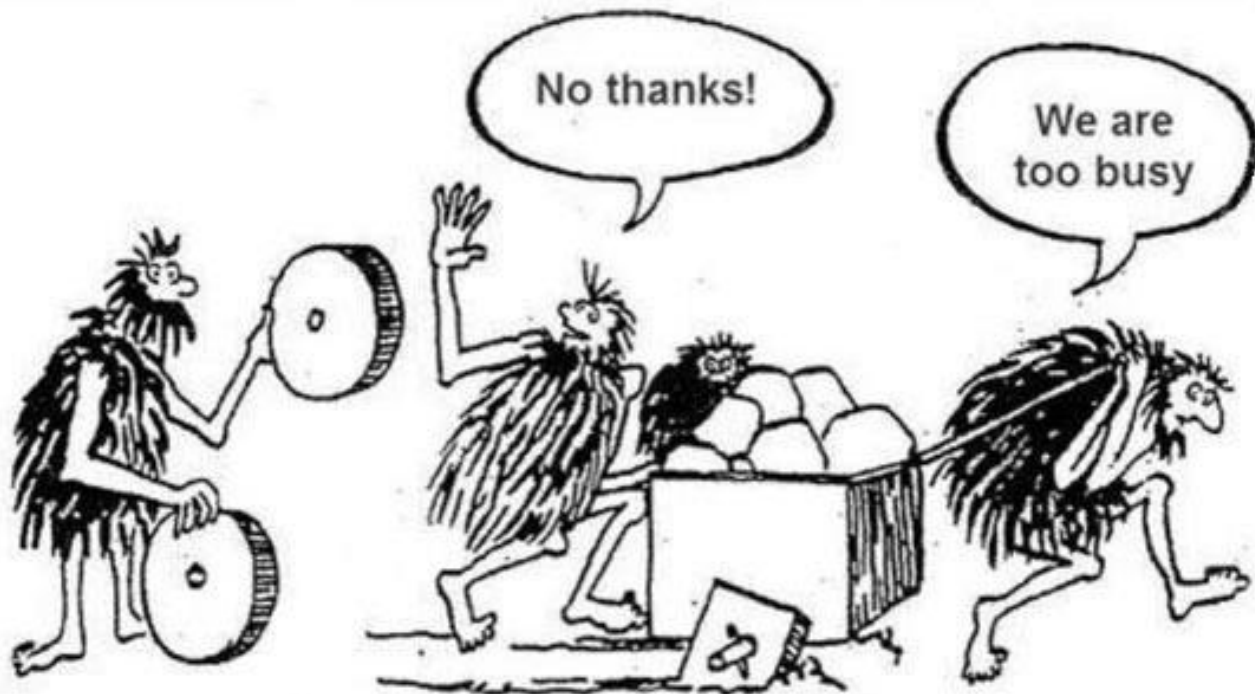
Integrity is doing the right thing when no one is looking and behaving with uncompromising honesty.

Caring is showing concern, empathy and compassion for others, ourselves, and our environment.

Integration is working unselfishly toward common goals across disciplines, teams, departments and regions.

Innovation is never being too comfortable with the status quo by developing new ideas and applying those solutions that differentiate us in valuable ways.

“Innovation: Theatre or Action?”



Empirical Data Doesn't Matter if the **Culture** isn't Ready

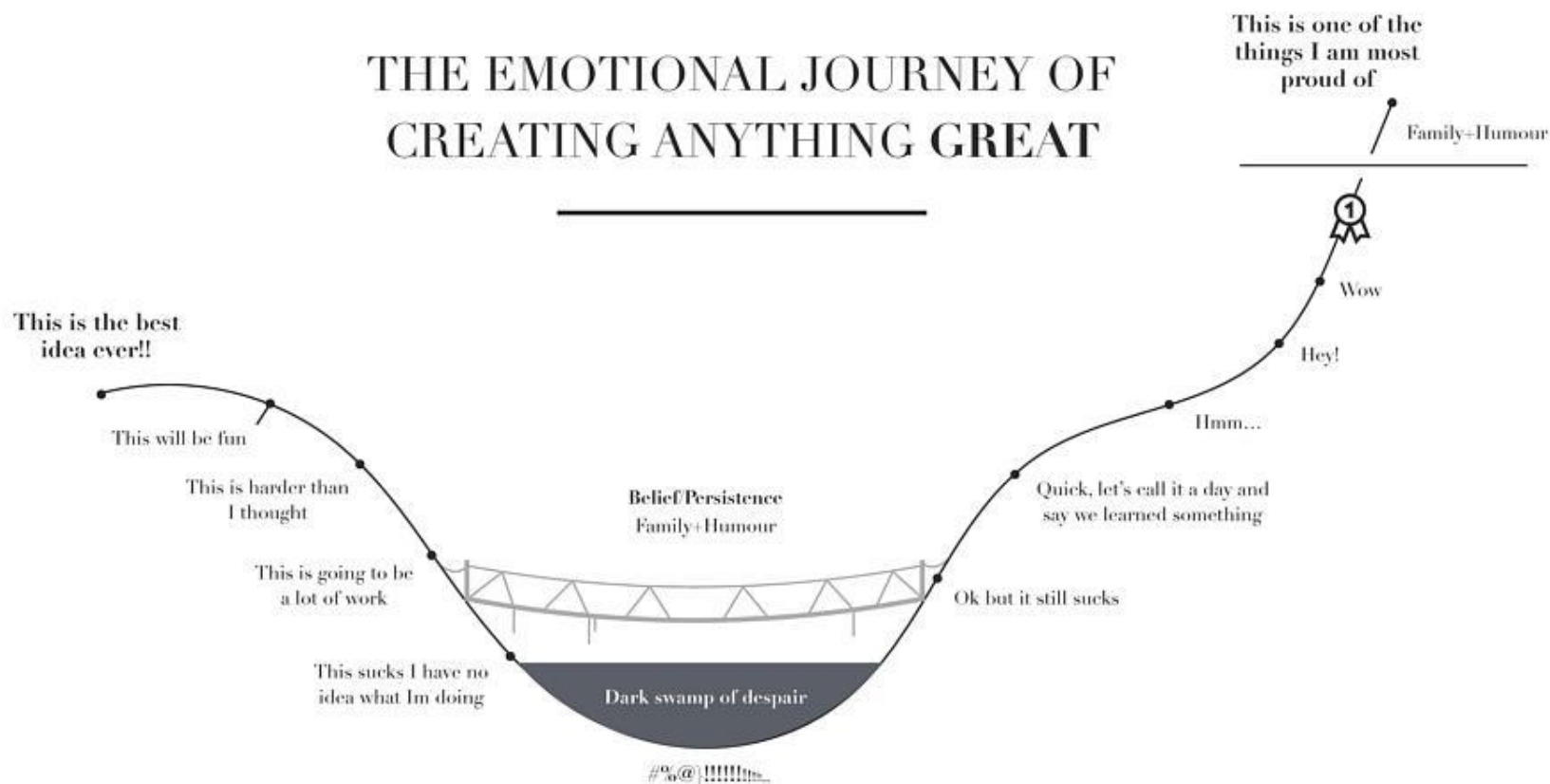
Call to Action!



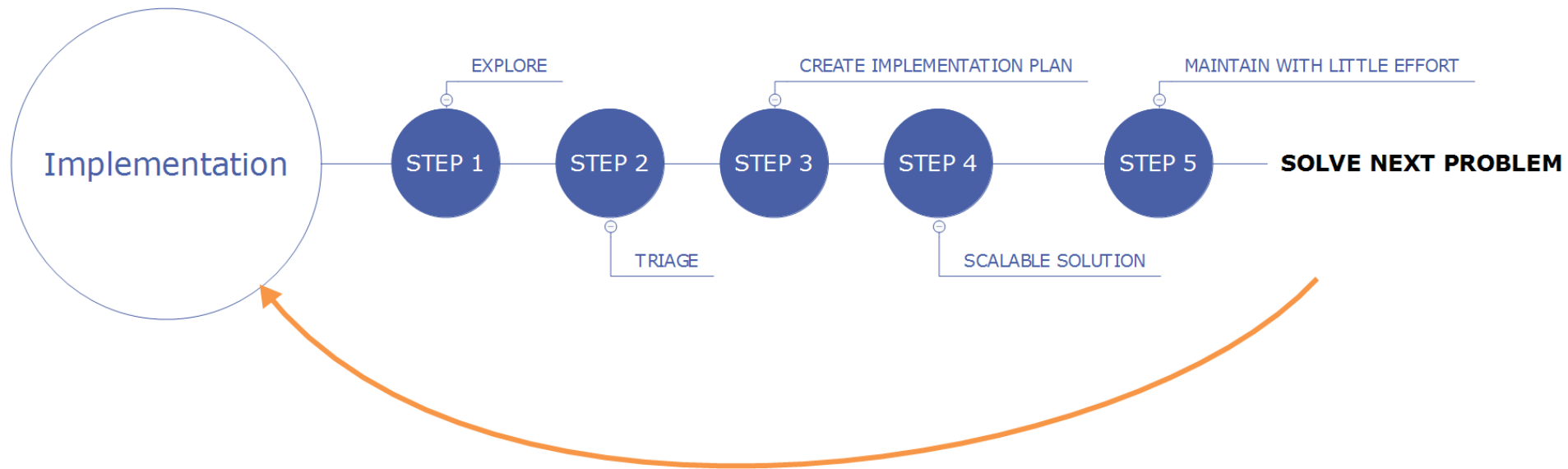
$$[\text{INTEGRATION} + \text{INNOVATION}] \times \text{TIME} = \text{VALUE}$$

In a recent McKinsey study, approximately **65% of executives surveyed** reported that they were **unhappy with their organization's inability to innovate**. That said, McKinsey also discovered that, “On the contrary, **senior executives almost unanimously—94%—say that people and corporate culture are the most important drivers of innovation.**”

THE EMOTIONAL JOURNEY OF CREATING ANYTHING GREAT



THE EMOTIONAL JOURNEY IS INEVITABLE AND PERHAPS NECESSARY



Good Ideas need to be scalable
and solve real problems..

Technology Trends

Hiring Programmers Internally

Domain Expert+ Programmer + Real Problem to Solve = \$

A question to keep in mind...

If it stays with the firm forever...just like excel, it is where information goes to die.

Thinking about the customer perspective: what data
do they need & how do they want it presented?

Everyone learns differently

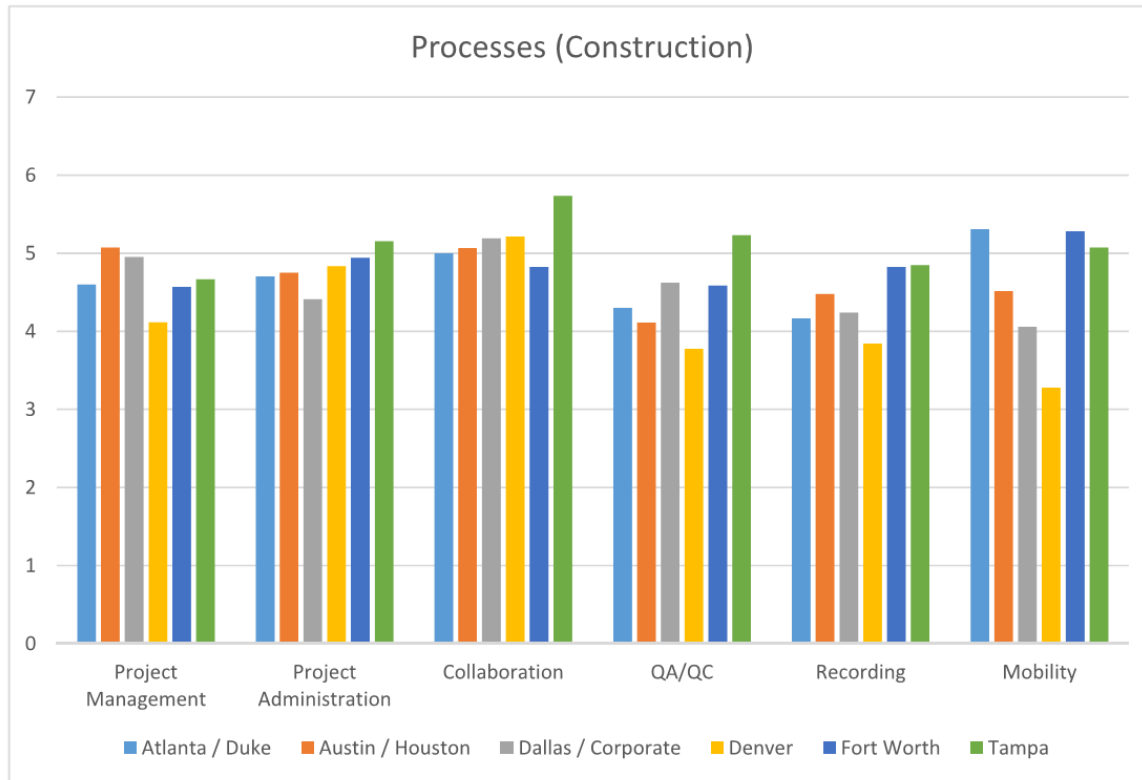
- + Auditory—hear it
- + Visual—see it
- + Kinesthetic—sense of space
- + Tactile—use a hammer

Step 1: Survey the Pain and Survey the Software

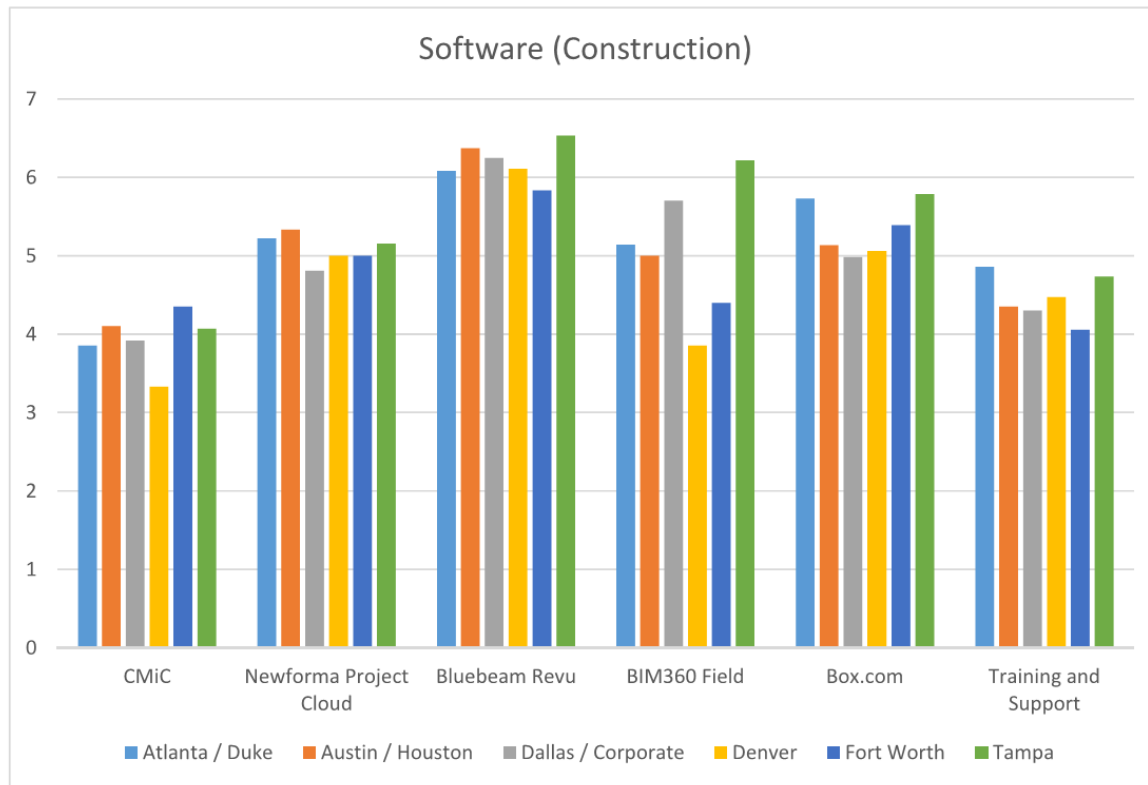
Understand the problem(s) you're trying to solve,
and your users needs.

“Top imposed is bottom opposed!”

Identify the Problem



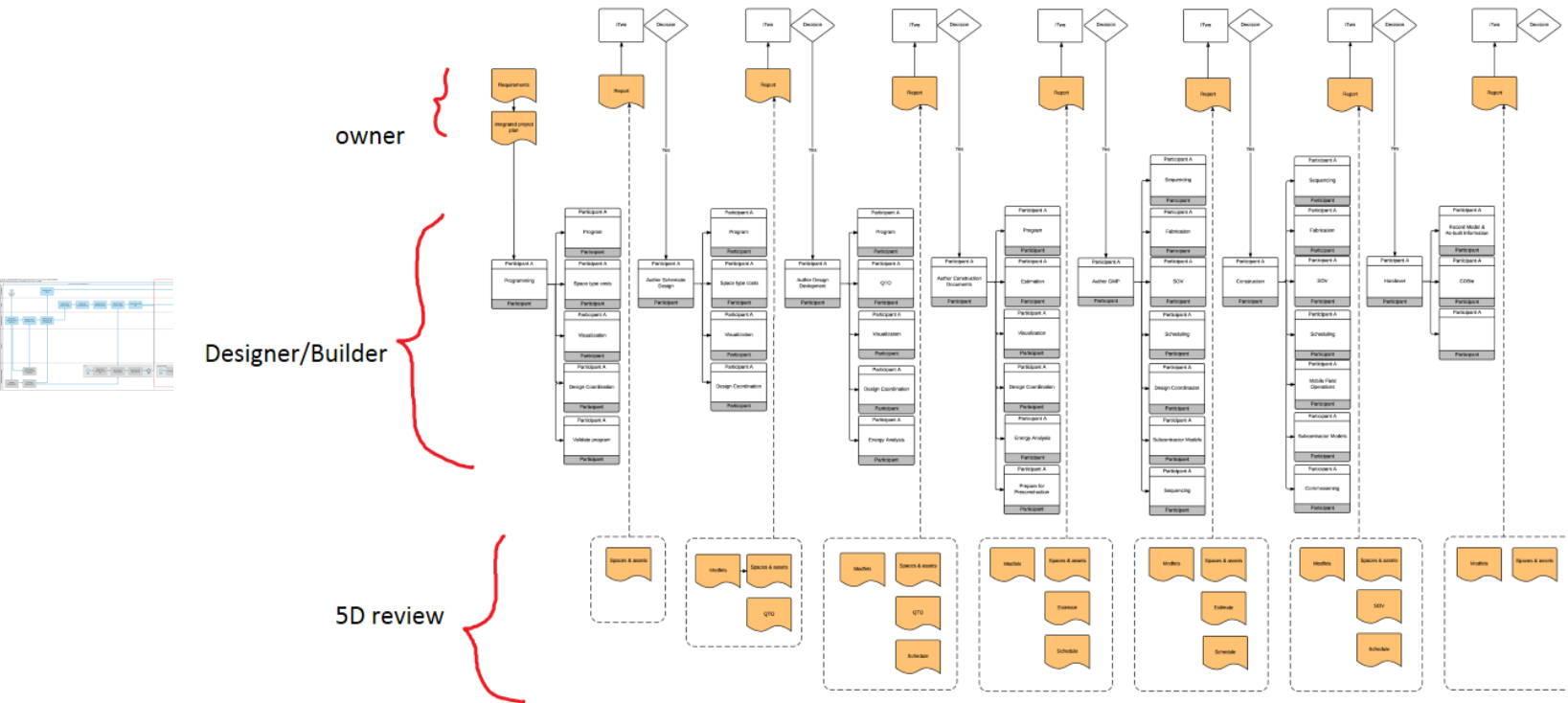
Identify the Problem



Step 2: Understand the Process and Workflow!

Choose software that integrates with other products. We don't purchase technology tools that do not have an effective API (Application Program Interface).

Process Maps are the best!



Step 3: Software Investigation

Match Software to Preferred Workflow

Standardize workflow and do not allow multiple software that do the same thing...

No Centralization = Resource Sharing Issues.

Software Comparison Matrix

(03/25/2016)

Software Comparison Matrix (03/25/2016)		Key Features	Project Administration	Cost Mgmt.	Accounting	Misc & Issue Mgmt.	Collab.	Design	Precon
		Cloud Based On Premise Based Desktop App Version Web-based Version Mobile Tools Workflow Customization Cross-Platform Integration	Drawing Management Drawing Log Drawing Markup Tools Submittals Submittal Log/Reporting RFI's RFI Logs/ Reporting Daily Reports Meeting Minutes Photo Management	Contracts Budgets Scheduling Change Management		Equipment / Asset Mgmt. Facilities Maintenance Issue & QA/QC Tracking Manpower (Timecards) Punchlist Safety Tracking/Trending	Email Databasing Contacts User Management Task Management File Sharing	Model Viewing Model Data Extraction Decision Matrix Tracking	Model Takeoff Drawing Takeoff Estimate Management Bid Management
Existing Software	Software Use/Type								
	Project Administration								
	ERP (Accounting, Financials, PM/PA)					?			
	Mobile QA/QC and Issue Tracking					?			
	File Sharing								
	Safety Issue Management								
Potential Software	Software Use/Type								
	Project Management and Collaboration								
	Engineering Project Collaboration								
	Collaboration and File Sharing								
	Construction Management					?			
	Construction Management								
	Construction Management					?			
	Construction Management								
	Construction Management								
	Construction Management								
	Construction Management								
	Construction Management								
	Residential-CM								
	Residential-CM								
	CM, ERP, Accounting								
	Enterprise Information Management								
	Procurement, DMI and DMI								
Other Collaborative Software	Software Use/Type								
	Collaboration Tool								
	Task Management								
	Project Management and Collaboration								
	Communication and Task Management								
	Field Construction App								
	Drawing Management								
	PDF Hyperlinking (Service)								
	File Sharing								
	File Sharing								

Step 4: Make sure you have the proper technical staff available to deploy and support the software.

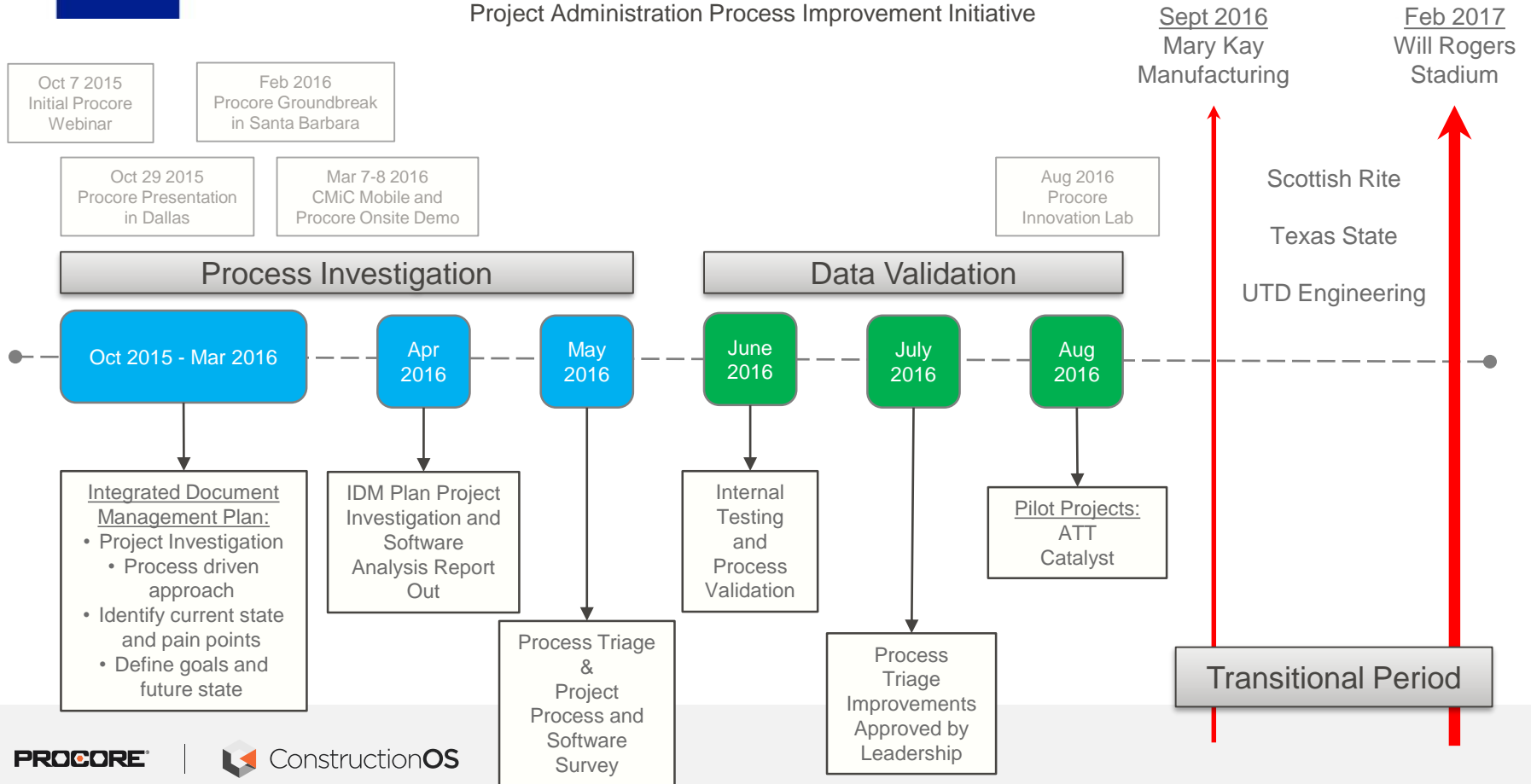
Develop a timeline with your implementation plan

Create training materials and best practices

Analyze adoption annually and adjust plan as needed

Timeline

Project Administration Process Improvement Initiative



The Beck Group

WELCOME TO THE BECK GROUP SUPPORT CENTER!

The training center has been set up to provide you with specific training and highlights Beck-specific best practices and processes you'll need to effectively leverage the power of Procore and be successful on your Project. We are excited to team up with you on your upcoming project and look forward to collaborating with you in our Project Management tool, Procore.



This site is broken out with role specific training material for each user. Please take the time to review the tutorials and training videos as these have been developed specifically for you and your role in Procore. We also have provided some quick links to specific tools within Procore for quick reference on your project.

Since the mobile capabilities are one of the best features of Procore, make sure to download the iOS or Android app on your smartphone or tablet. This will help with keeping you connected on the project site with the most current project information.

BECK PROJECT TEAM



Project Admin



PE/PM



Field



Beck Architecture

EXTERNAL PARTNERS



Subcontractor

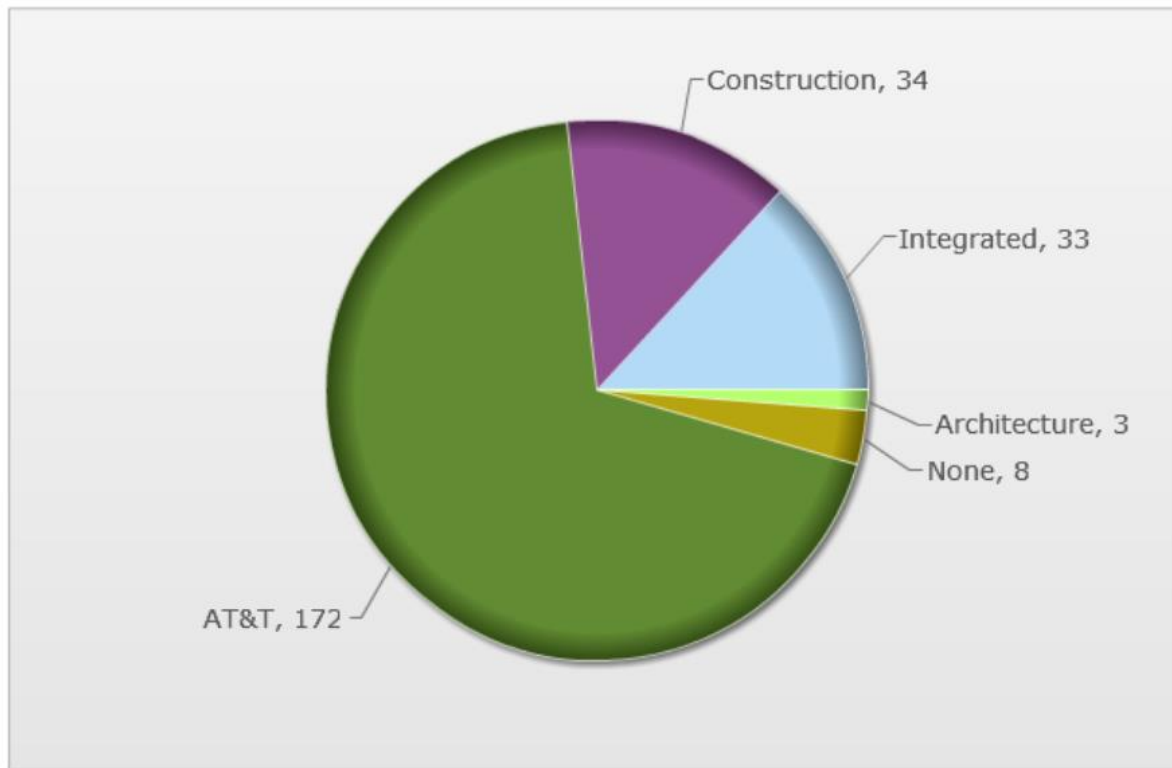


Design Team

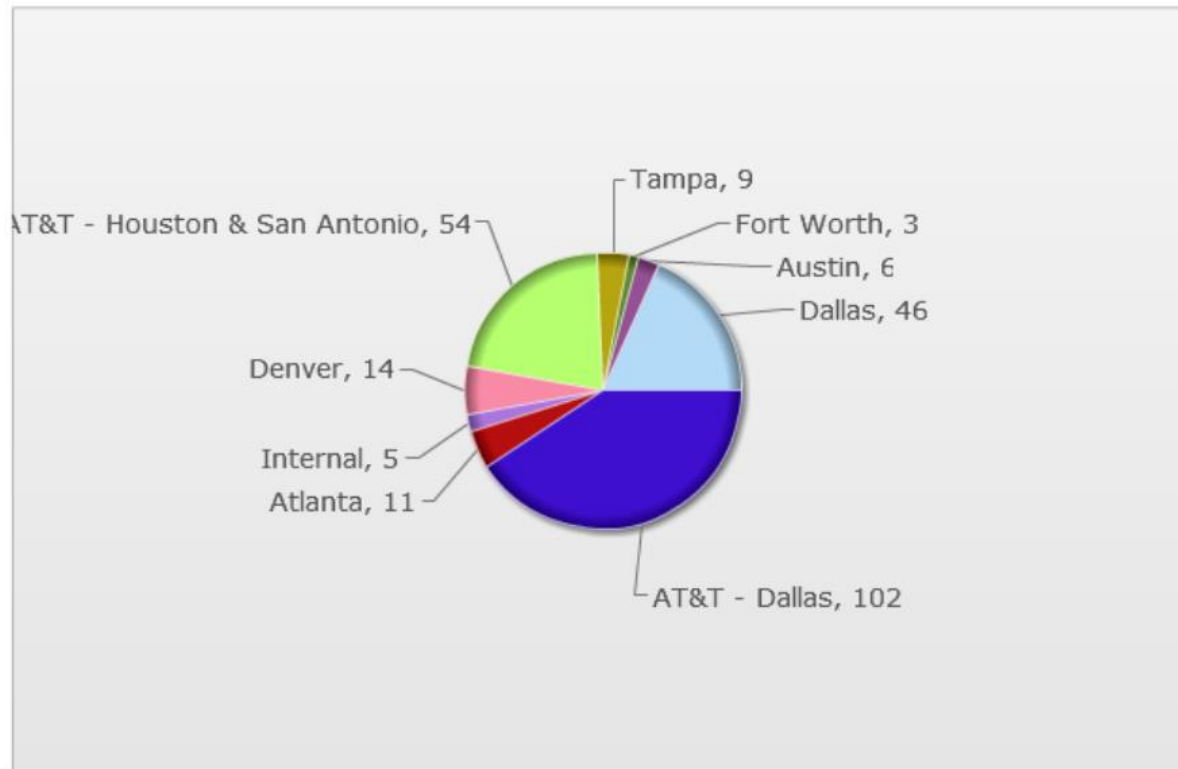


Owner

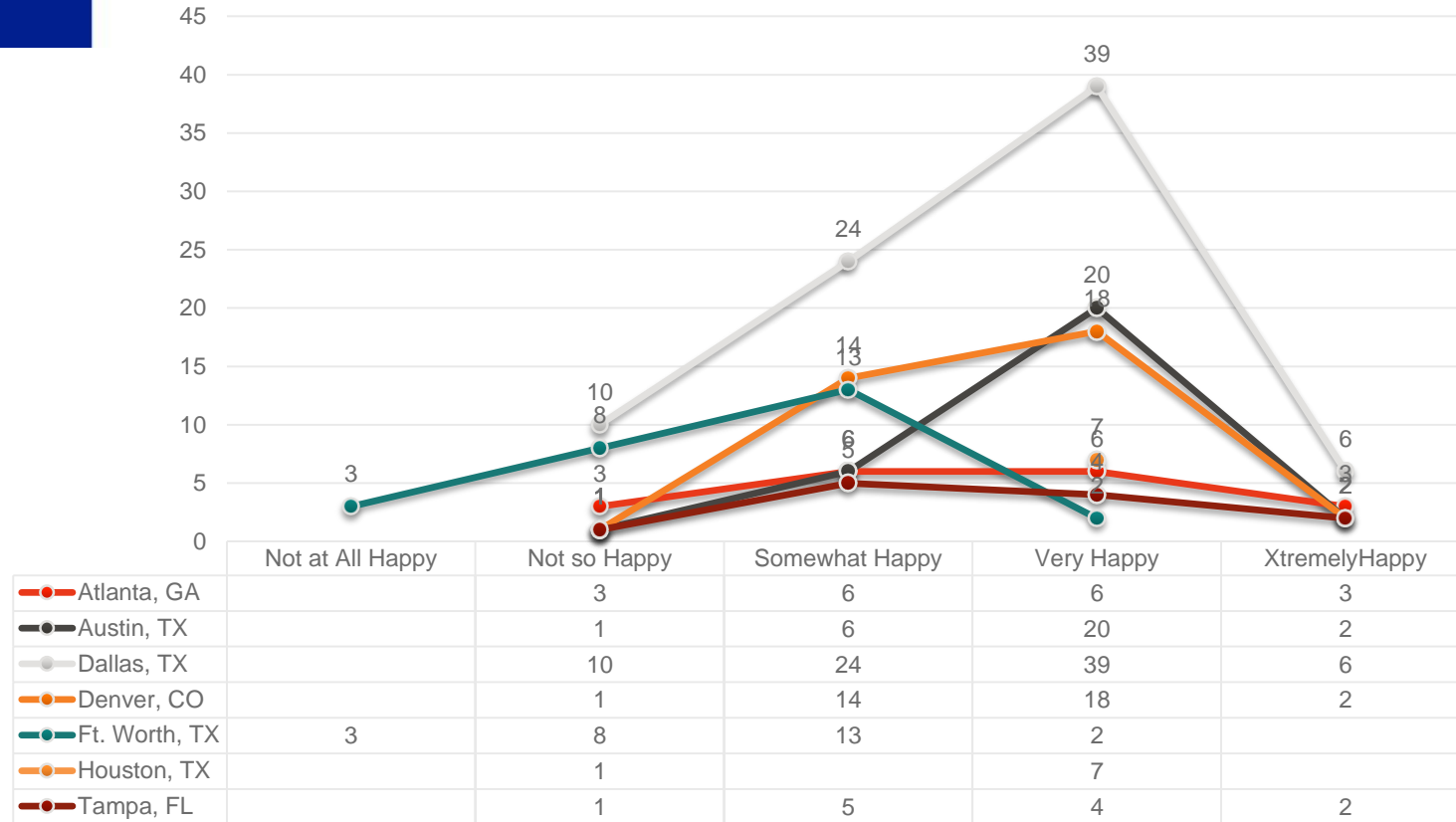
Project Usage



Project Usage



User Feedback



Dig Deeper...but...Keep it simple.

 Total active projects: 41
 Operative Schedule, Compliant: 35

 Projects displayed: 10
 Operative Schedule, Compliant: 7

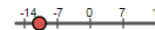
169294 Harbor Chase Park Cities \$51.3 M Work Progress Yes 0

The window installation activities at each level are currently riding the data date. Windows at levels 2-3 on elevation a are being installed next week. If the team feels the installation process went as planned the remaining window installation activities will be scheduled out during the next update.
 (morganlugo, 6/14/2017 9:29AM)

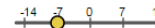
Start: 4/18/2016

430 days past 146

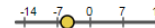
Conditioned Air



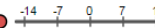
Dry-in



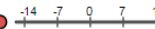
Moving Air



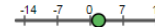
Moving Air/ Temp. Cooling



Permanent Power



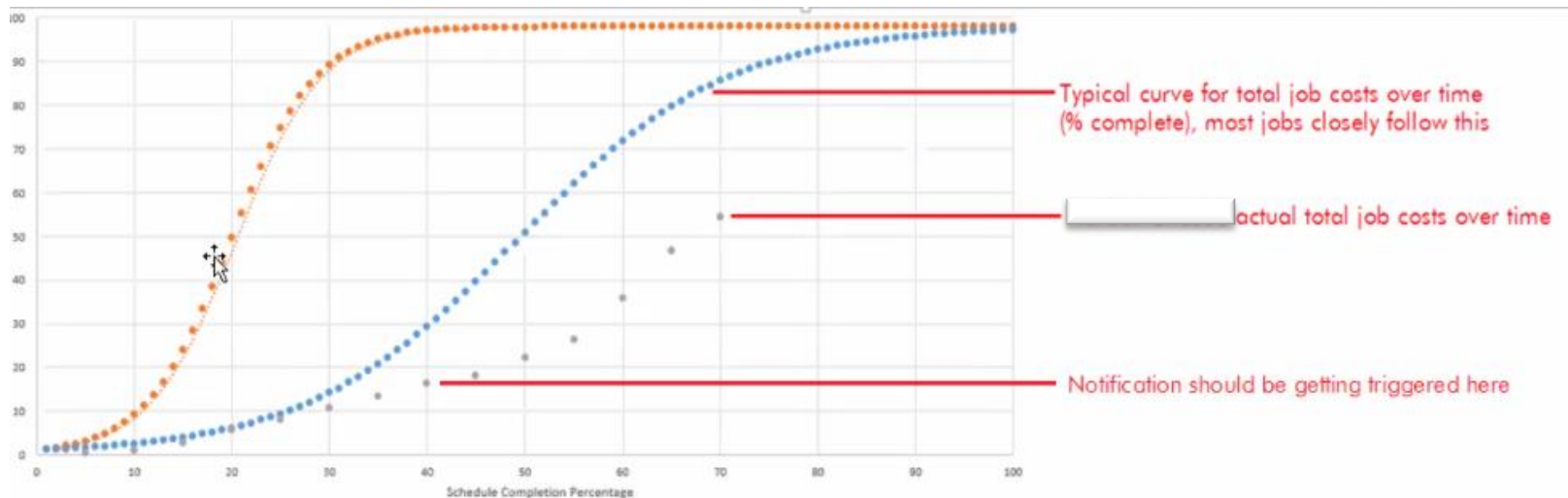
Substantial Completion



We are still showing we will finish on time
yet we are missing internal milestones?

168730	Scottish Rite North Campus		Work Progress	Yes	0	Start: 10/31/2016 Final Completion: 234 511 days remain
168841	SMU Substation	\$14.8 M	Work Progress	Yes	0	Start: 7/13/2015 710 days past 40
168879	THR Mansfield	\$20.8 M	As-Built	Yes	0	Start: 9/1/2015 631 days past 0

No really, what else is going here?



Excel is where information goes to *die*...
How else can we know this?

Magic.



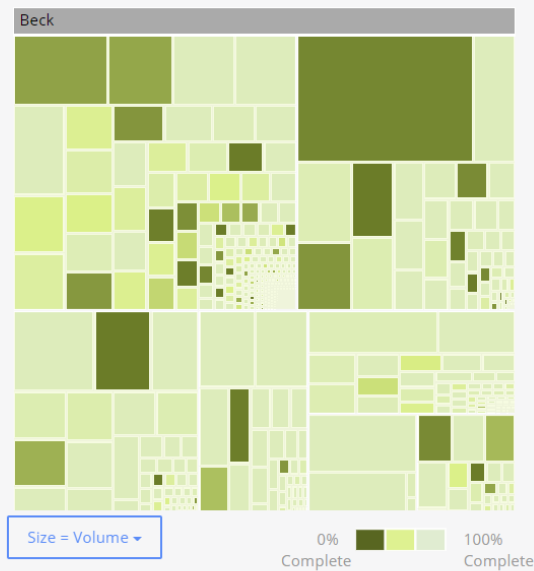
WATCH LIST



PREFERENCES



JOBS



Work in Progress by Region

EVM without EVM.

Region: Dallas

Dept. code:

Job code:

Contract amount:

? Profit Variance:

? Current Projected Profit: \$1,176,628

Percent complete (by cost): 53.84%

Last WIP date: 2017-05-31

Total billed: \$25,994,555

Job Type: 3rd Party Construction

Schedule Summary

? Is job in scheduling dashboard?: yes

? Last schedule update: 2017-06-14

? Is latest schedule compliant?: yes

? Finish date according to latest schedule: 2017-11-13

Calendar days since job start: 428

Calendar days remaining: 147

? Schedule Variance: This project has 0 days of float in the schedule.

? Percent complete (by schedule): 74.43%

? Scheduling Contact: morganlugo@beckgroup.com

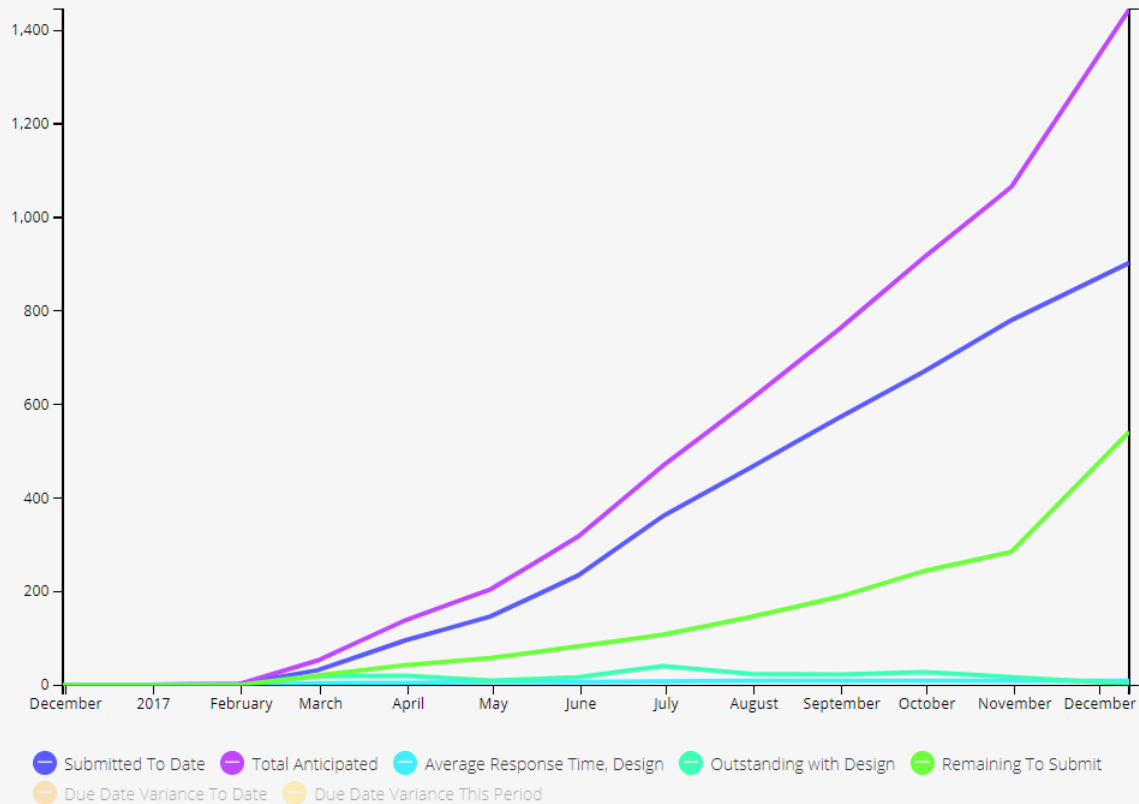
Click below expand the list of major milestone

WATCH LIST

PREFERENCES

JOBS

Arena - Cost of Work: Submittal Data



Show RFI data for this subjob.

Q + A

Thank you!

Contact Us



jamesnorris@beckgroup.com



brianfilkins@beckgroup.com



hunterminary@beckgroup.com



jordanchristensen@beckgroup.com