



Making Sense of Mobile Apps for Construction

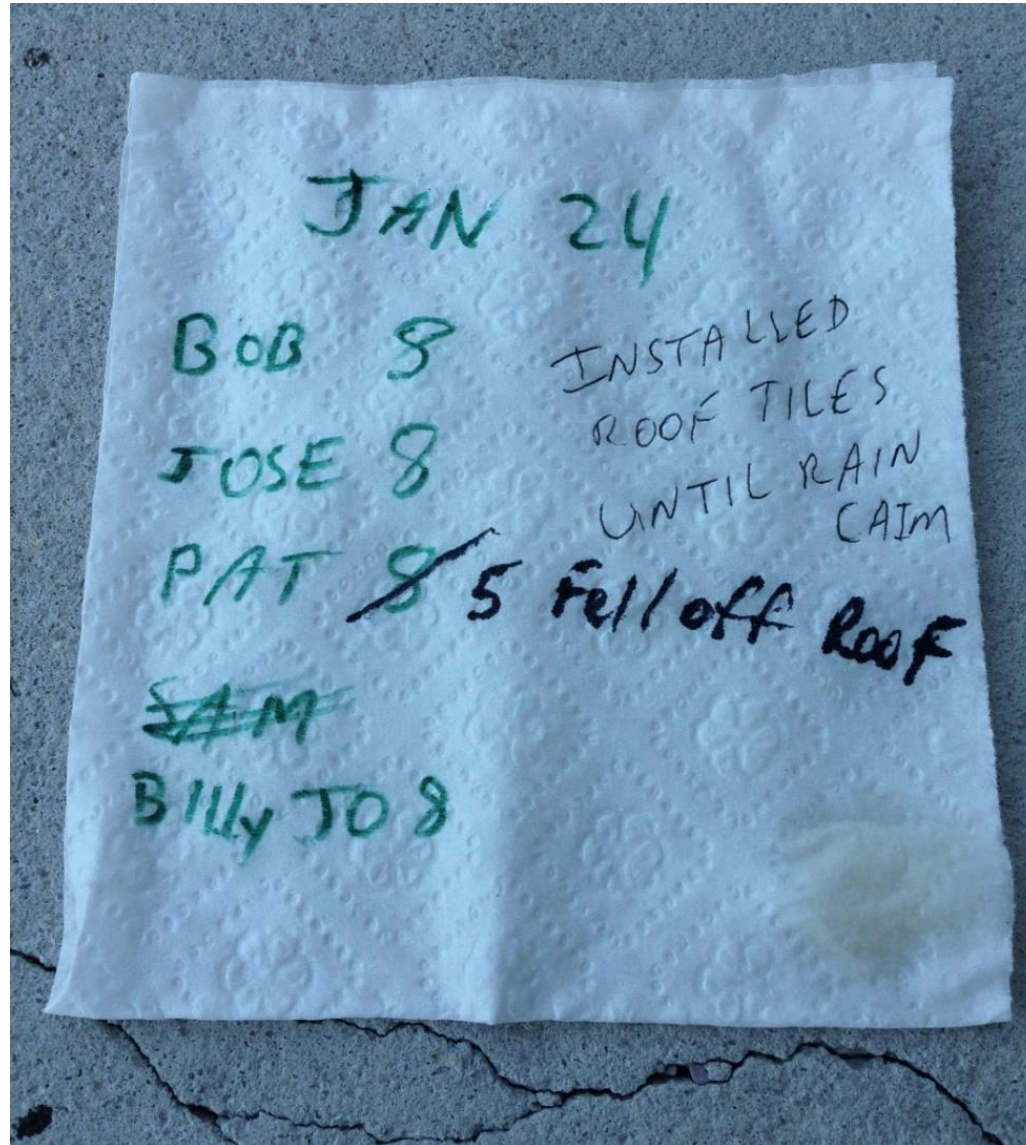
MAKING SENSE OF MOBILE APPS FOR CONSTRUCTION

AGENDA

- **Before Mobile**
- The History of Mobile Apps
- Mobility – Right Tool for the Job
- Pick Your Devices
- Developing a Plan
- Conclusion
- Questions

BEFORE MOBILE

FOREMAN FILLS OUT PAPER TIMESHEETS



BEFORE MOBILE

TIMESHEET WAS FAXED TO OFFICE

Foreman	Laborer	HRS	Date	Activity
FRED	BOB	8	1/24	Install Roof Tiles
	BOB	8	1/25	"
	BOB	8	1/26	"
	BOB	8	1/27	"
	BOB	8	1/28	"
	BOB	8	1/24	"
	JOSE	8	1/25	"
	JOSE	5	1/24	Roof Tiles, then Pelt
	PAT	8	1/25	Disability
	Pat	8	1/26-1/28	Disab
	Pat	8	1/24-28	Install Roof Tiles
	Billy Jo	8		

note
Smith, or Brown?

brother
IntelliFA
PLAIN PAPER

Check PAPER

Tel-index Resolution Mode Q.Scan Help

01 02 03 04
Amnet
13 14 15 16
05 06 07 08
17 18 19 20

Sort
Enlarge/
Reduce

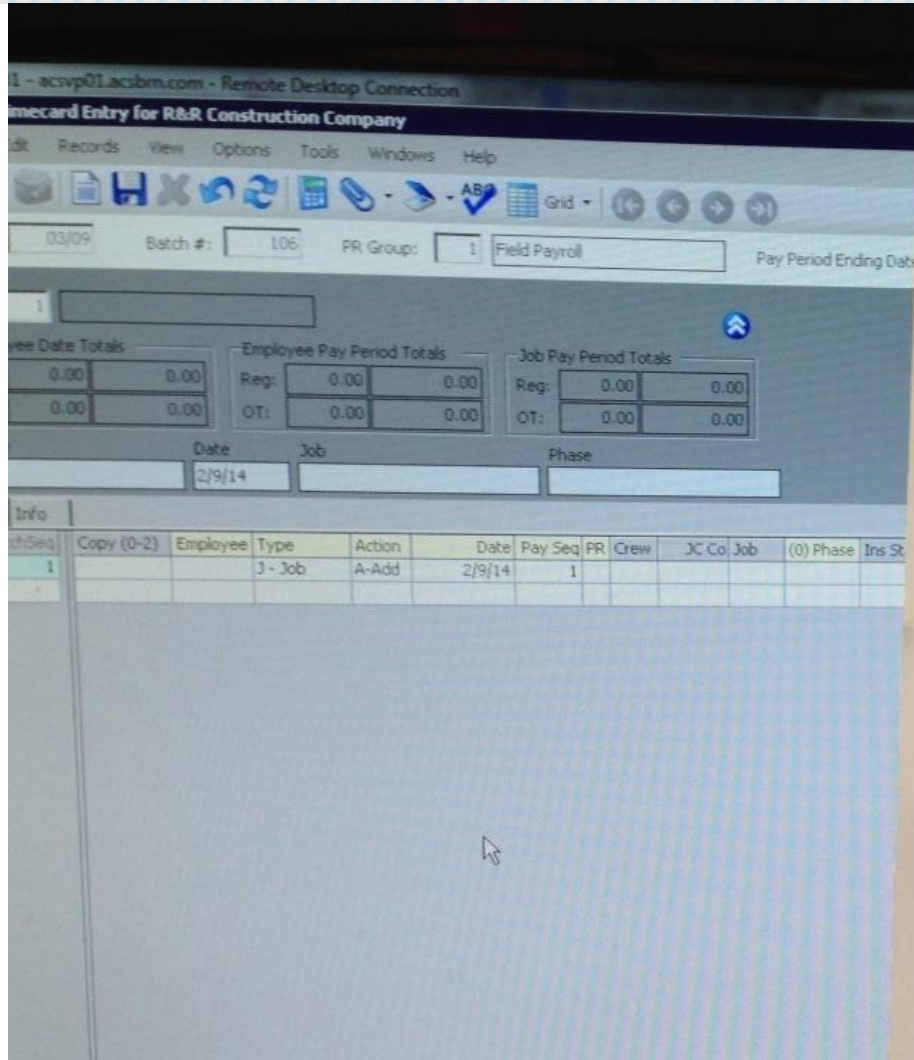
BEFORE MOBILE

PAYROLL CLERK



BEFORE MOBILE

DATA IS RE-KEYED INTO ACCOUNTING SYSTEM



Foreman	Laborer	Hrs	Date	Activity
FRED	BOB	8	1/24	Install Roof
	BOB	8	1/25	"
	BOB	8	1/26	"
	BOB	8	1/27	"
	BOB	8	1/28	"
	JOSE	8	1/24	"
	JOSE	8	1/25	"
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Billy Jo	note Smith, or Brown?	8	1/24-28	Install Roof

BEFORE MOBILE

PM REVIEWS JOB PROGRESS



Poll Question #1:

Are you using mobile devices for labor time collection?

- **Yes**
- **No**
- **Not Sure**

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HISTORY OF MOBILE APPS

FOREMAN ENTERS TIME DAILY

 Mobile Field Manager

 Home

 Dashboard

 Labor Time

 Equipment

 Productivity

 Reports

 Settings

< 01/06/14 >

Job

First Avenue High School Gym

3 Employees Selected

Job Cost Time

Regular Hourly

Fine Grade Continuous Footings - Labor

Select a Payroll Co,

Select a Payroll Dept

Select a Craft Override

Select a Equipment Code

7

Save and Exit

Save and Continue

Bud's Crew 1-1

 A BINJAKA 2.00

 A NEW GUY 0.00

 A THOMPSON 0.00

 ADAM YOUNG 0.00

 ALVIN ROSE 0.00

 ANDY DAUB 0.00

 ANOTHER NEW GUY 0.00

 BARRY FRANGIPANE 5.00

12:55

HISTORY OF MOBILE APPS

PM REVIEWS JOB PROGRESS DAILY



HISTORY OF MOBILE APPS

SECOND GENERATION: FOREMAN SEES PRODUCTIVITY EVERY DAY

031000-1--1, Form & Strip Continuous Footin - Labour

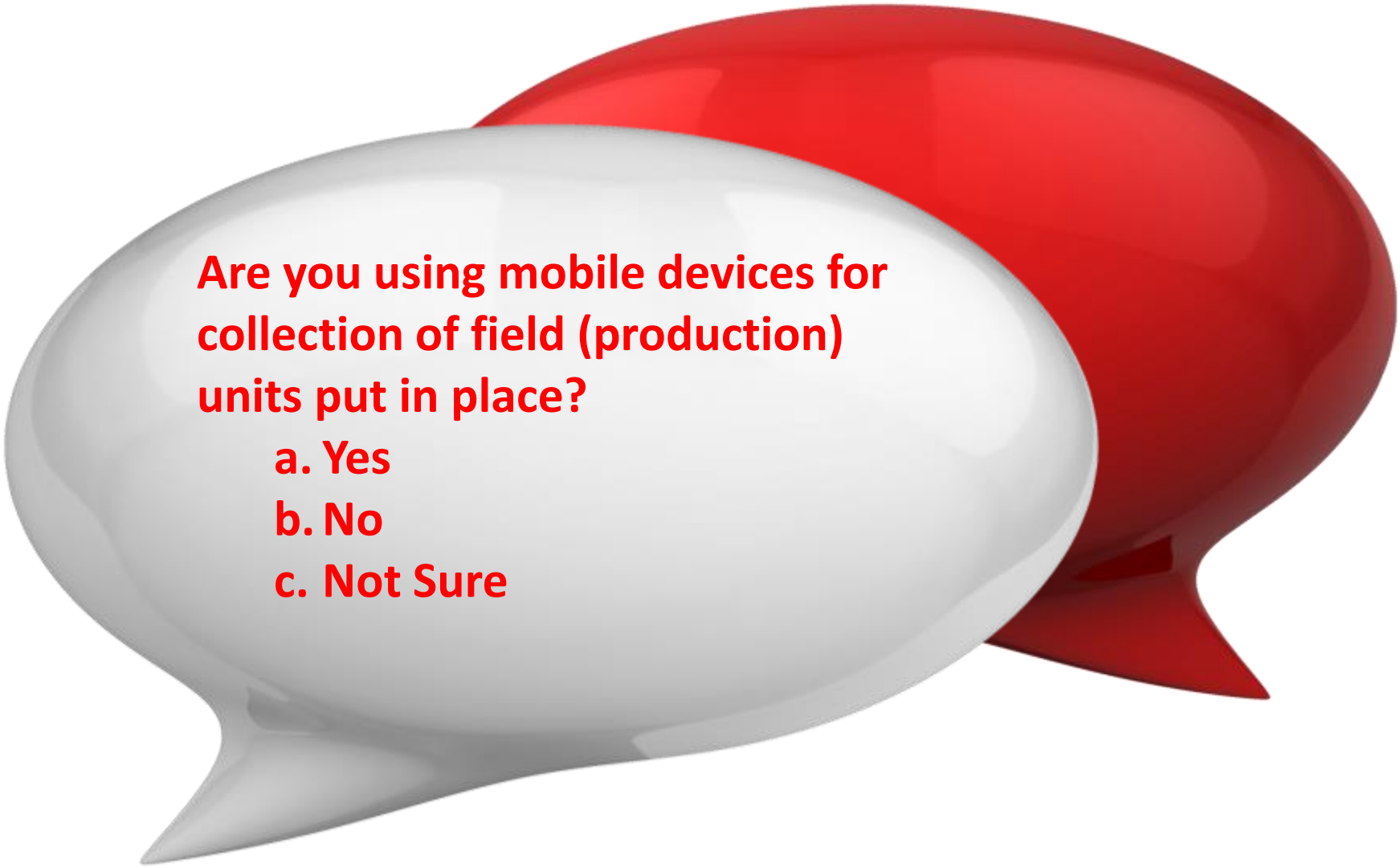


	Budgeted	To Date	Remaining	01/14/16
Unit	1429.00	965.00	464.00	5.00
Hour	107.00	74.30	32.70	1.70
Unit/Hour	13.36	12.99	14.19	2.94

Project hours to complete based on current rate: 35.73

Units per hour to meet budget: 14.19

Poll Question #2:



**Are you using mobile devices for
collection of field (production)
units put in place?**

- a. Yes**
- b. No**
- c. Not Sure**

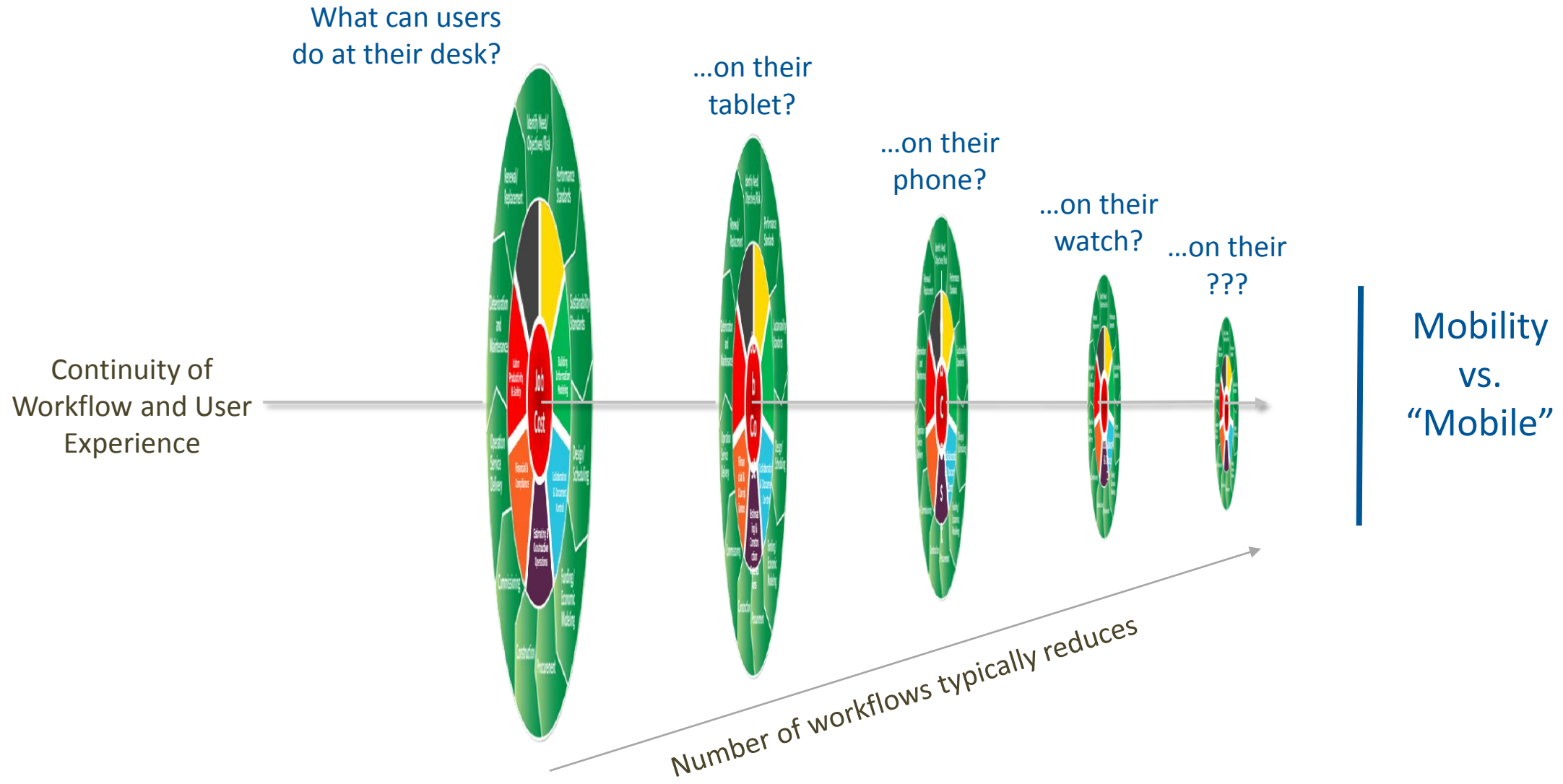
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FROM MOBILE COMES “MOBILITY”

MOVING FORWARD



MOBILITY: THE RIGHT TOOL FOR THE JOB

ROLES



MOBILITY: THE RIGHT TOOL FOR THE JOB

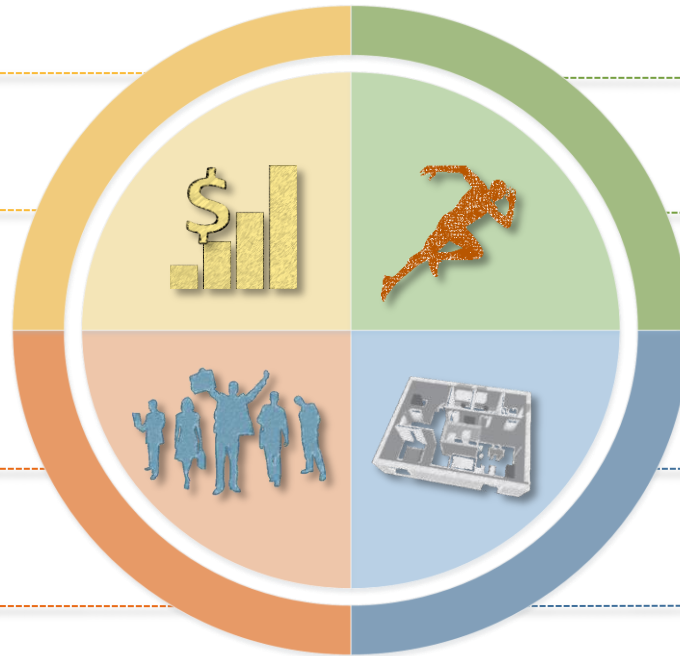
LOCATIONS

AT YOUR DESK

ON THE GO

WITH THE TEAM

WALKING THE SITE



MOBILITY: THE RIGHT TOOL FOR THE JOB

AT YOUR DESK

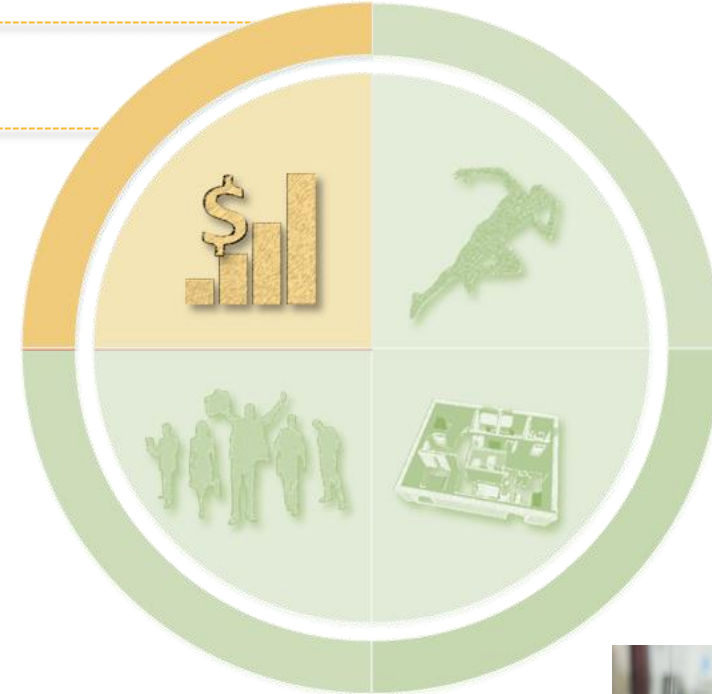
AT YOUR DESK

Get the paperwork done

- Dashboards to show you where you need to focus
- Code invoices, billings, contracts, projections
- Reduce the amount of paperwork by distributing the work

Manage profitability and risk

- Accurate, up-to-date financials
- Project information directly integrated with financials



MOBILITY: THE RIGHT TOOL FOR THE JOB

ON THE GO



ON THE GO

Receive info directly on your mobile device

- Your notifications and alerts
- Your to-do's
- Your appointments/meetings

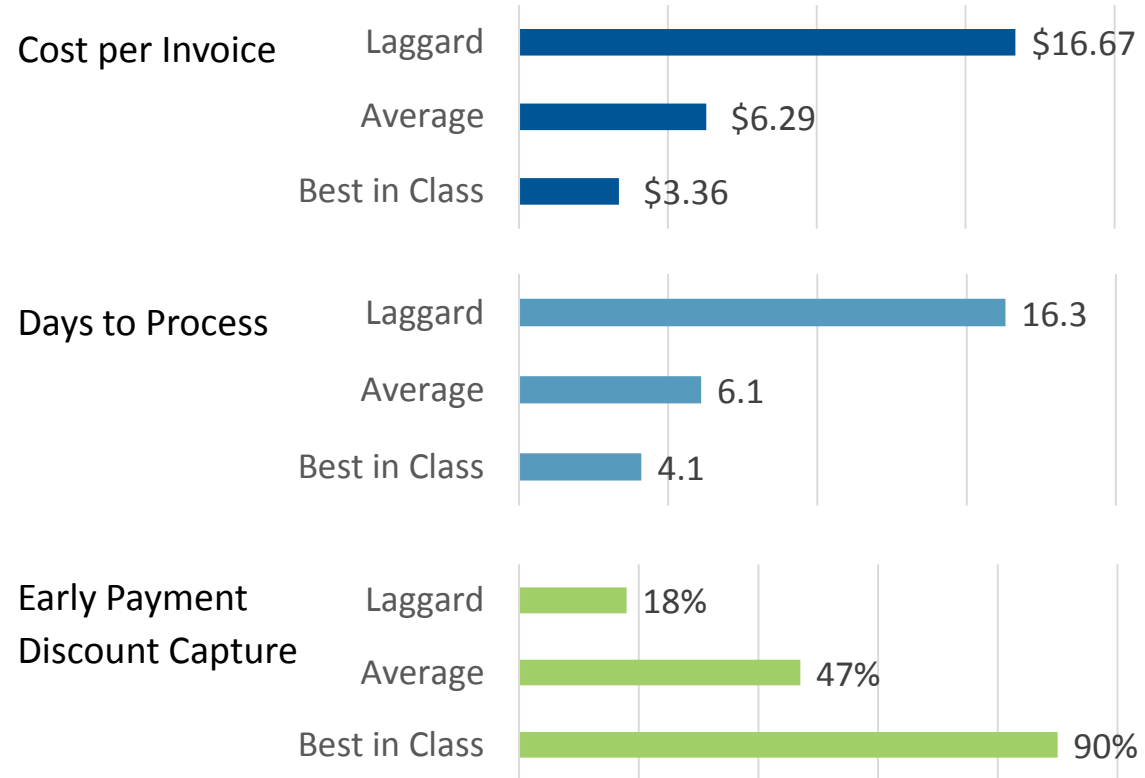
Workflows on your Mobile Device

- Photos for Issues, RFIs, Daily Logs, etc.
- Rapid approvals and commenting on documents

MOBILITY: THE RIGHT TOOL FOR THE JOB

FASTER INVOICE PROCESSING FOR BETTER ROI

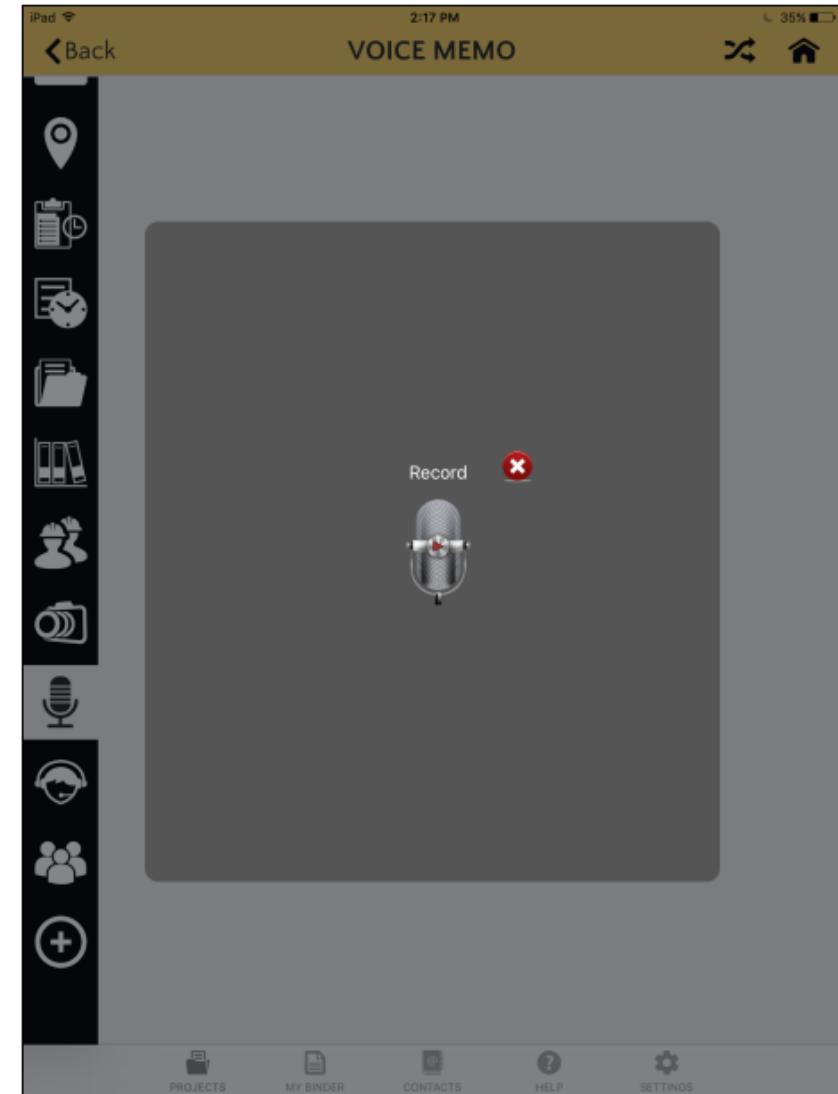
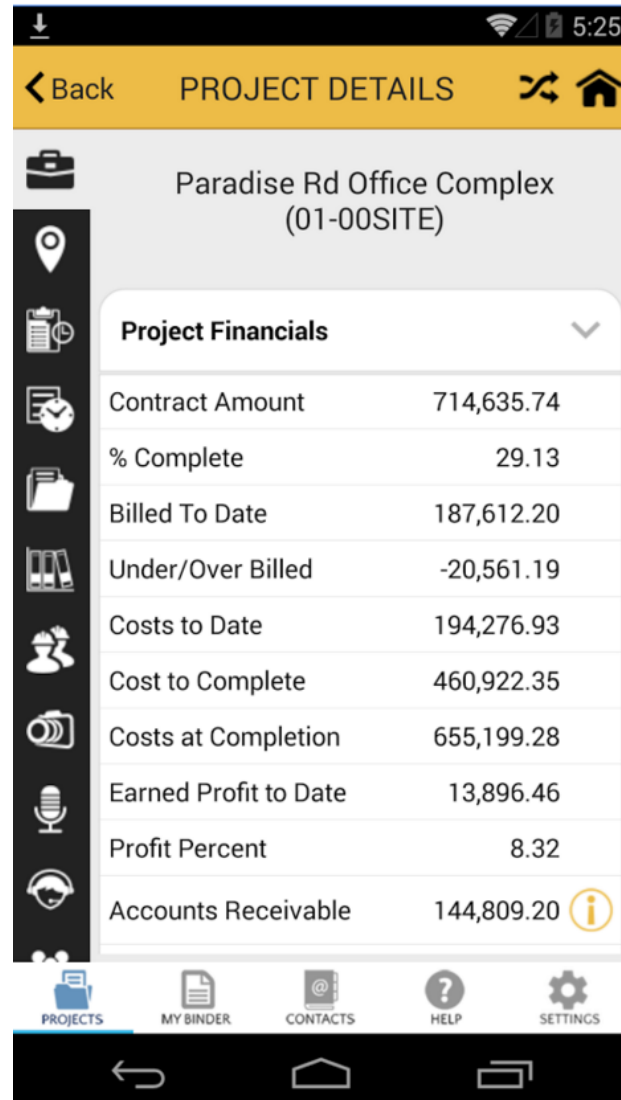
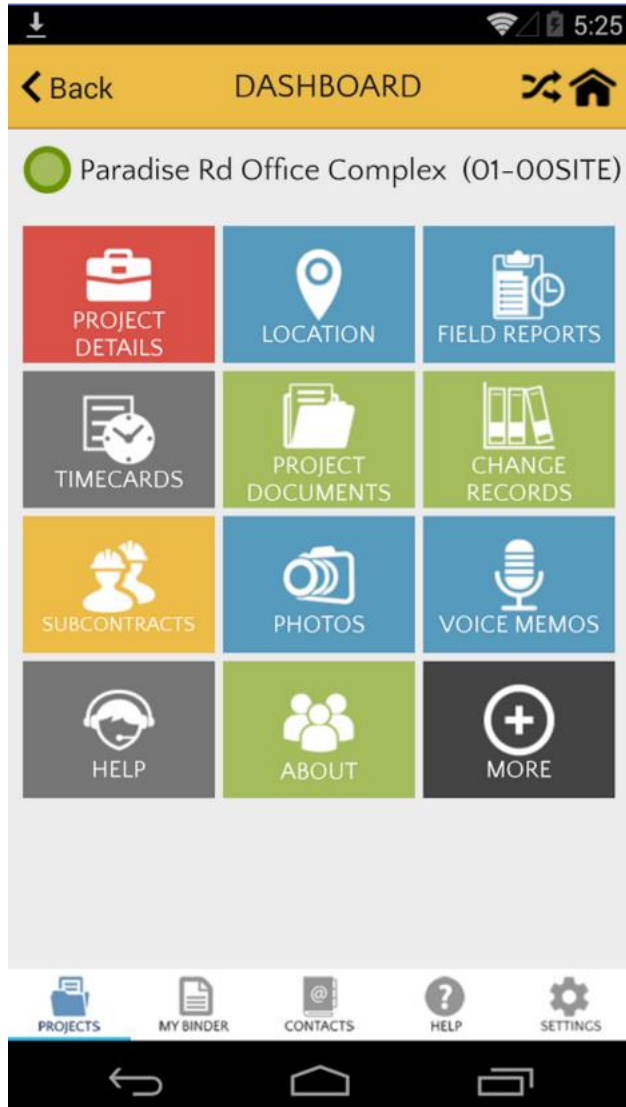
AP Invoice Performance



Source: AP Invoice Management in a Networked Economy, Aberdeen Group

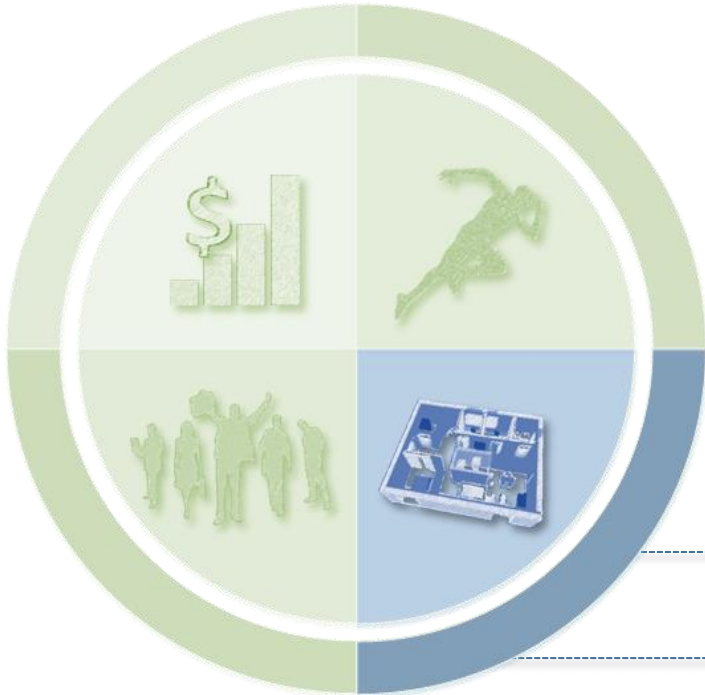
MOBILITY: THE RIGHT TOOL FOR THE JOB

REVIEW DOCUMENTS, RECORD NOTES



MOBILITY: THE RIGHT TOOL FOR THE JOB

WALKING THE SITE



Interactive plans in the field

- Download and review plans
- Create and attach issues/punch lists/etc. to drawings

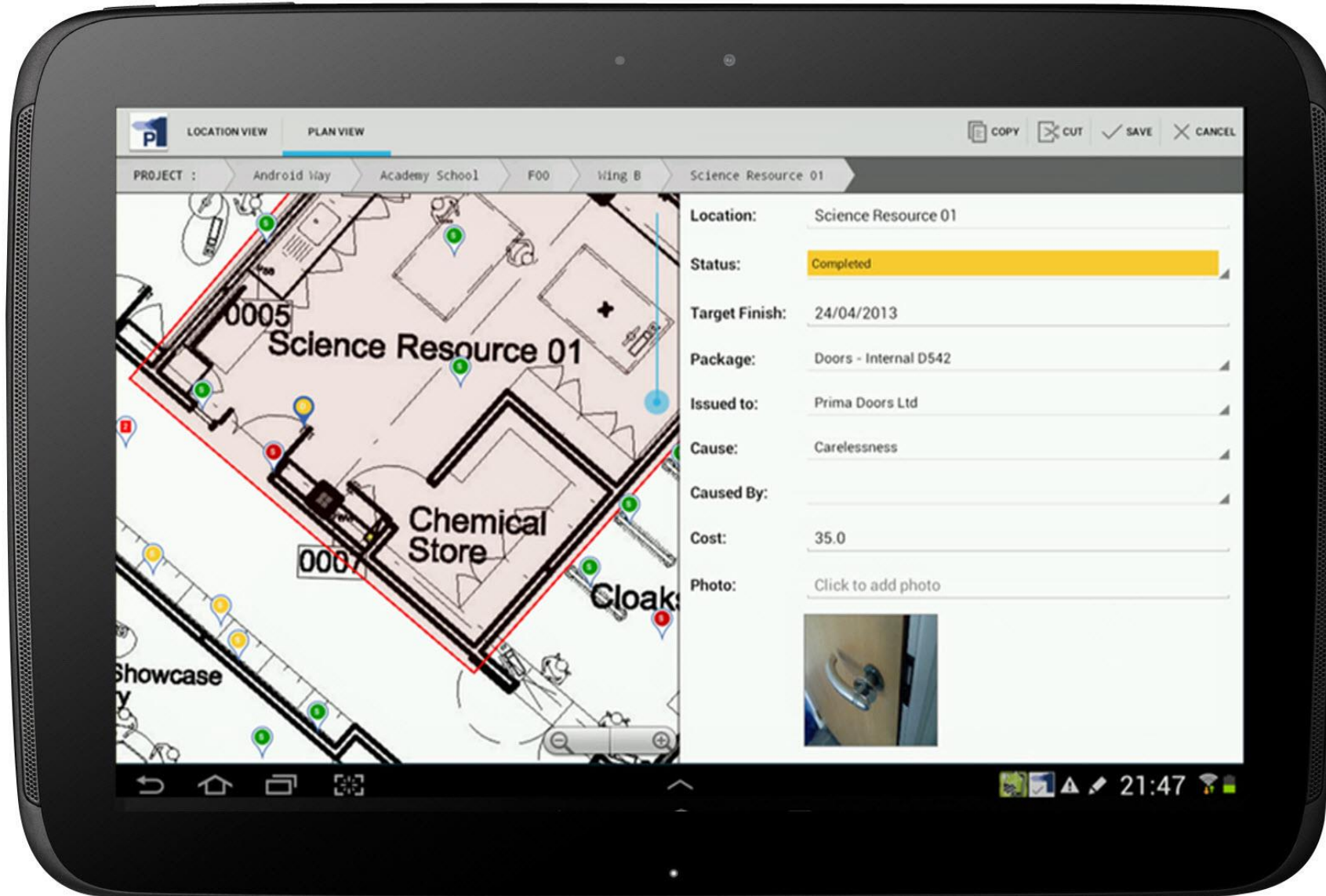
Extend your office into the field

- Initiate project documents such as RFIs
- Collect signatures from owners, subs, suppliers
- Access critical project information

WALKING THE SITE

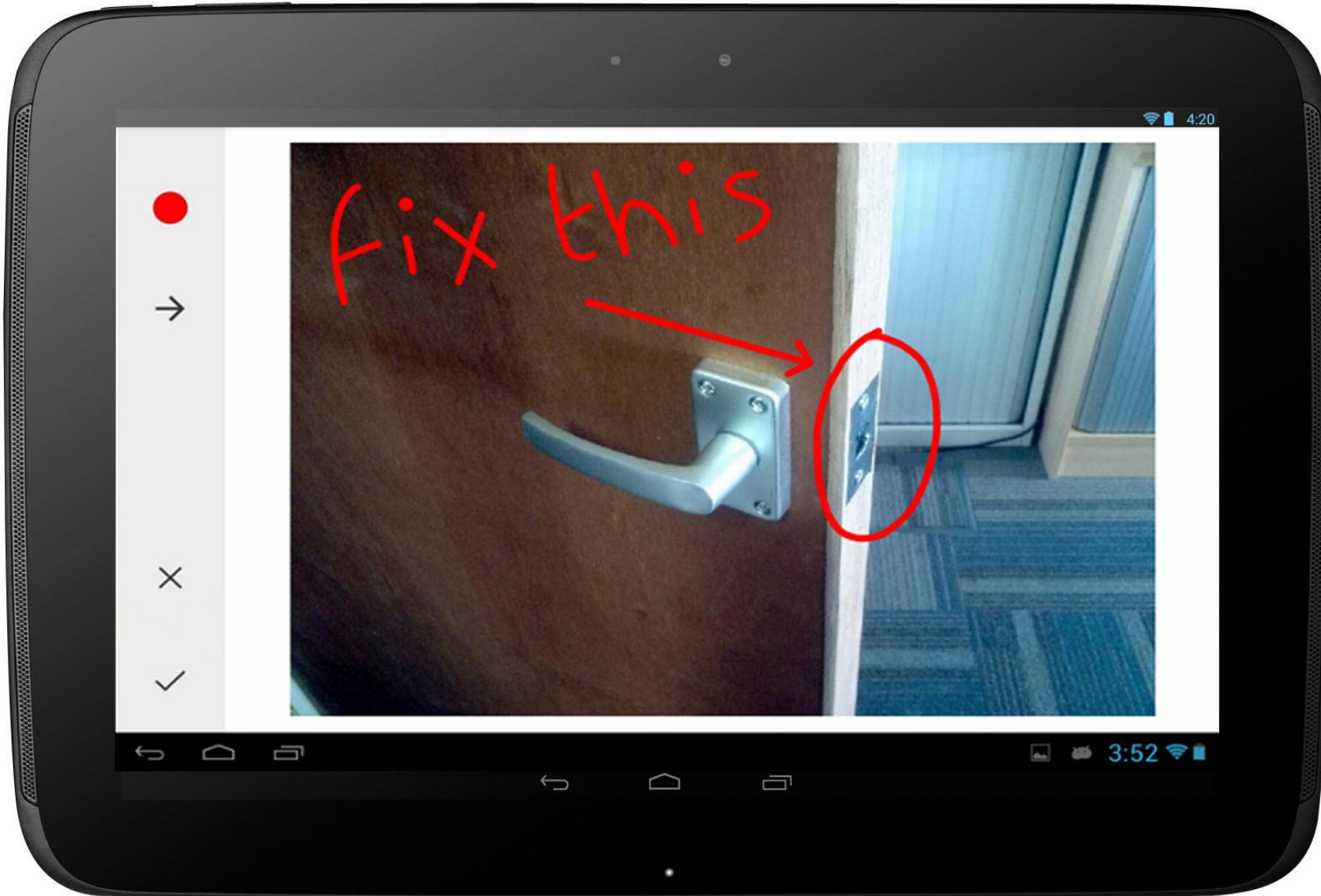
MOBILITY: THE RIGHT TOOL FOR THE JOB

BETTER JOB TRACKING THROUGH POINT OF OBSERVATION DATA COLLECTION



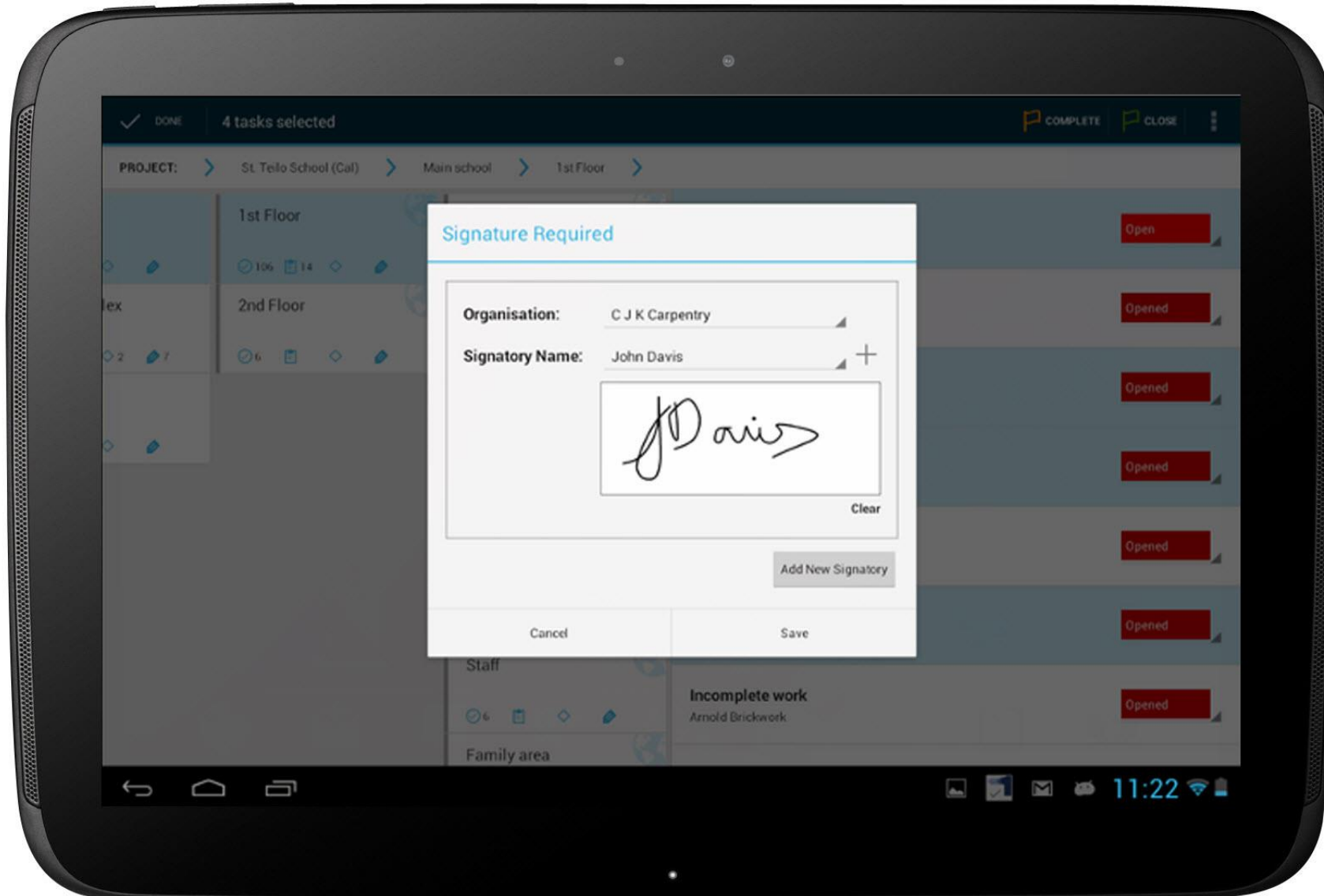
MOBILITY: THE RIGHT TOOL FOR THE JOB

BETTER JOB TRACKING THROUGH POINT OF OBSERVATION DATA COLLECTION



MOBILITY: THE RIGHT TOOL FOR THE JOB

BETTER JOB TRACKING THROUGH POINT OF OBSERVATION DATA COLLECTION



MOBILITY: THE RIGHT TOOL FOR THE JOB

MOBILITY IN ACTION: WILMOTT DIXON

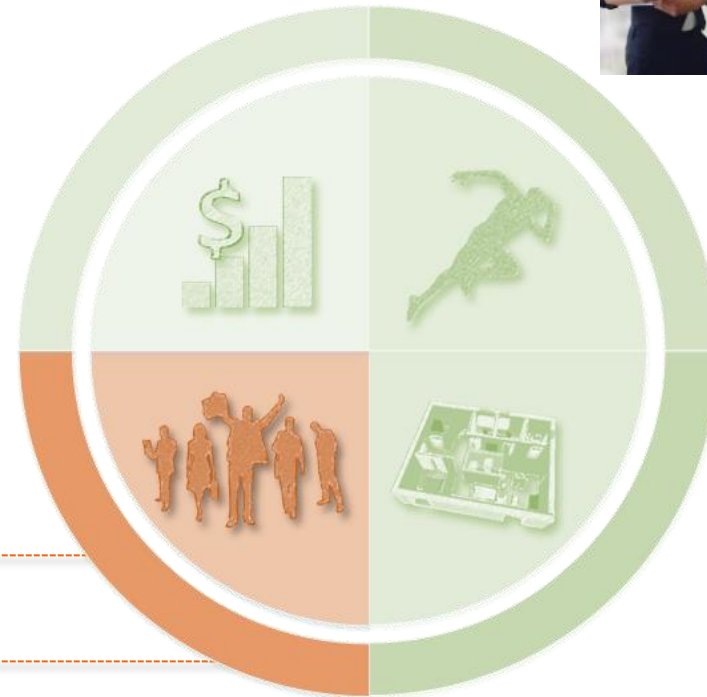


MOBILITY: THE RIGHT TOOL FOR THE JOB

WITH THE TEAM

Clear communication maximizes effectiveness

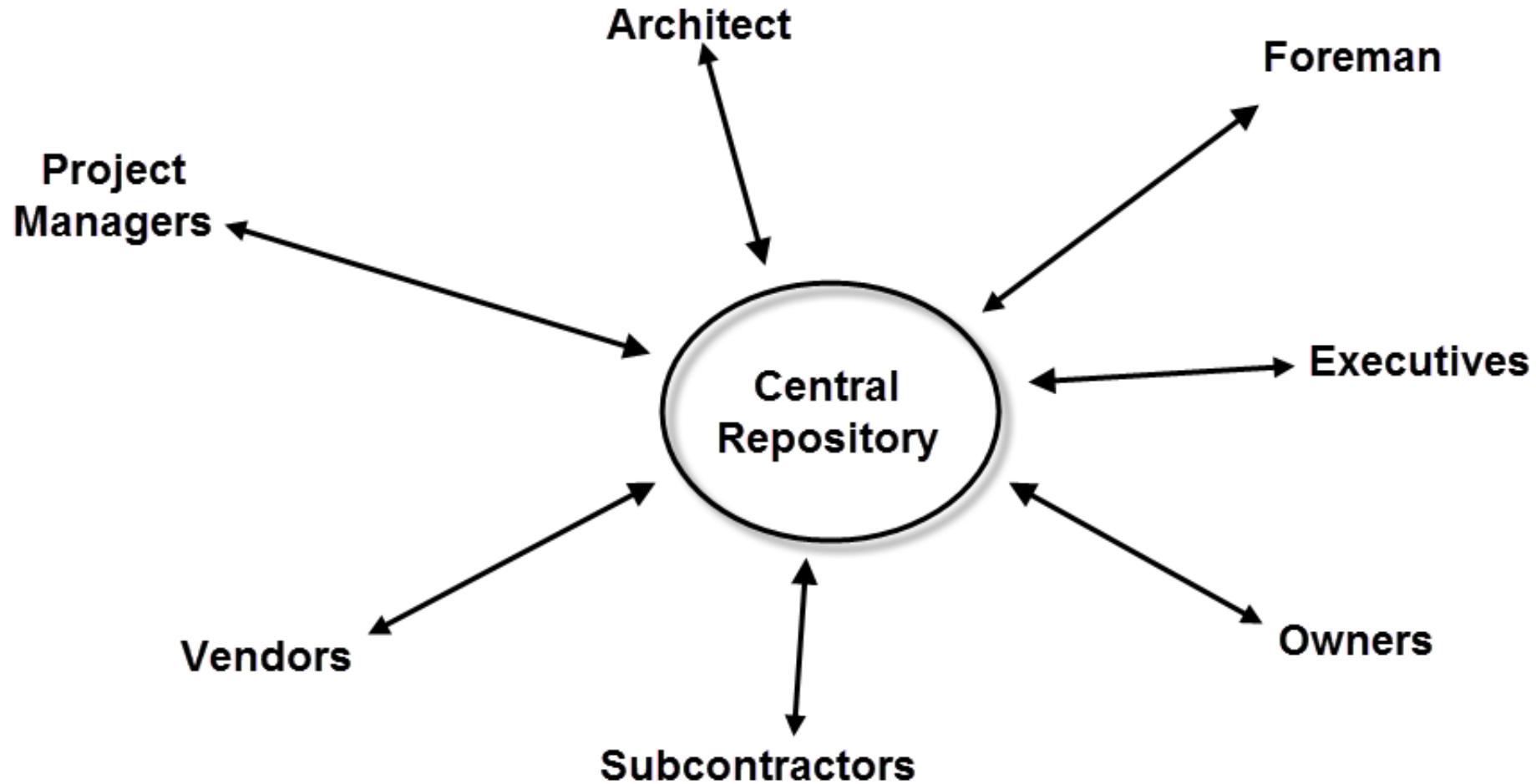
- Review, markup, and comment on project docs
- Ball-in-court tracking
- Customized workflows
- Dashboards driving performance
- Single source of truth for all stakeholders



WITH THE TEAM

MOBILITY: THE RIGHT TOOL FOR THE JOB

SINGLE SOURCE OF TRUTH



Poll Question #3:

Which of the following are you completing on a mobile device (select all that apply)?

- Punch Lists
- Inspections
- Safety Checklists
- None

MOBILITY: THE RIGHT TOOL FOR THE JOB

SOFTWARE / HARDWARE

	Windows Client	Browser Apps	Native Mobile Apps
Who	• Accounting staff pounding out invoices • PMs sitting at desk trying to get through paperwork • Internal employees who own the information	• Subs, architects, owners, vendors trying to get in and get out, quickly find what they are supposed to do and do it • PMs who need to create, distribute, and organize project team information • Executives who want to see information • Internal employees who interact with the information	• Foremen, PMs, subs, architects, owners, vendors, needing to plan their activities for the day • Foremen, PMs, subs, architects, owners, vendors, needing to quickly capture or review information in the field
Where	• Anywhere with an internet connection	• Anywhere with an internet connection • Online only	• Online or Offline
What	• PCs or Laptops	• Laptops, tablets	• Tablets and phones
Why	• Personal productivity, efficiency, power, flexibility • Heavy data entry	• Team oriented • Get in/get out • Highly graphical experiences	• My to-do's, notifications, alerts • Point of observation data capture • On-the-go access

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PICK YOUR DEVICE(S)

PHONE OR TABLET?



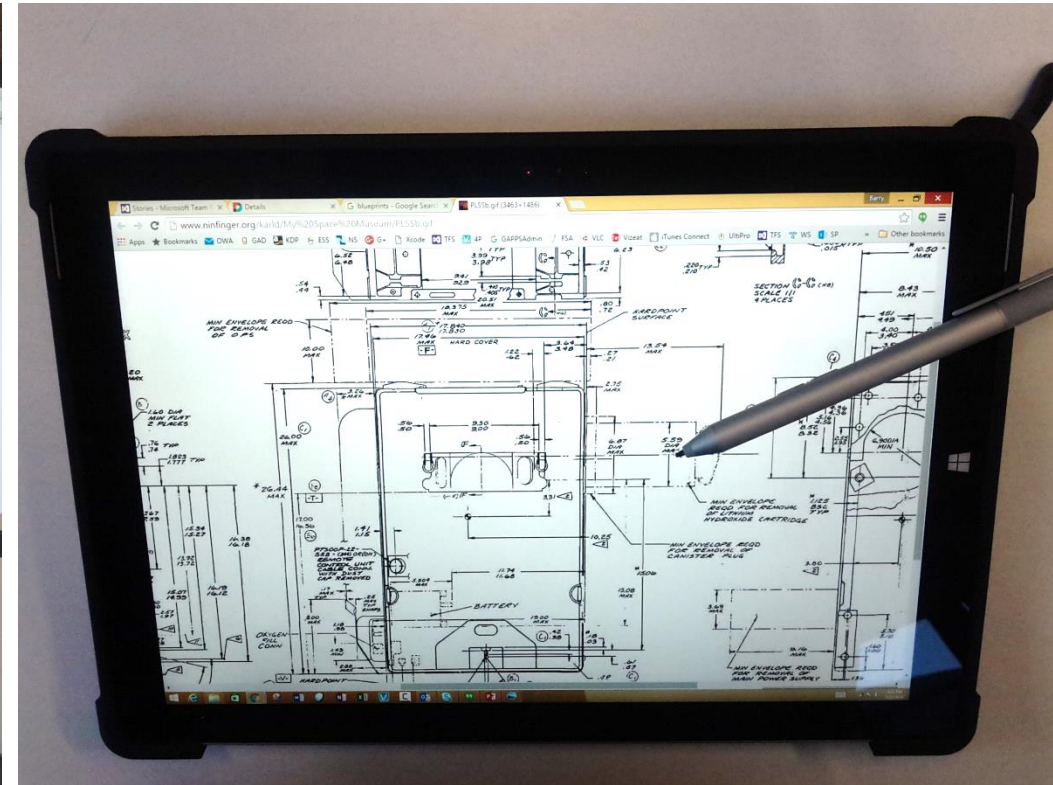
PICK YOUR DEVICE(S)

WINDOWS PC / TABLET



PICK YOUR DEVICE(S)

WINDOWS PC / TABLET



PICK YOUR DEVICE(S)

PREPARE AND PROTECT YOUR EQUIPMENT



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PLANNING

WORKFLOWS

- Map out workflows
 - Project Managers
 - Foremen
 - Superintendents
 - Payroll
 - External Stakeholders
- Determine what/where offline capabilities are needed
 - Time Collection
 - Productivity Analysis
 - Process Control
 - Checklists

PLANNING

COLLABORATION

- Map out collaboration points
 - Inspections
 - Punch Lists
 - Daily Logs
 - RFIs
 - Outstanding tasks
 - More
- Select Software
 - Time Collection
 - Productivity Analysis
 - Document Control
 - Process Control
 - Punch lists
 - Checklists
 - Notifications

PLANNING

DEVICES

- Select Devices
 - Software compatibility
 - Phone/Tablet/Laptop/PC
 - Online/Offline
 - Data Plans
 - Wifi Access
 - More
- Protect Devices
 - Ruggedized Case
 - Safety Vests

PLANNING

ROLL-OUT

- Phased Roll-out
 - Work with a few seasoned ConOps team members
 - Solicit feedback
 - Walk the site
 - Work with software vendor to make adjustments
 - Roll-out slowly

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MAKING SENSE OF MOBILE APPS FOR CONSTRUCTION

CONCLUSION

- Map your desired workflows
- Determine collaboration points
- Pick your devices
- Pick your software
- Consider all factors
- Phase roll-out
- Revisit annually

QUESTIONS

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