

Technology is of the Devil



Paul Godwin

BIM Manager for MAREK





About the speaker

Paul Godwin

Paul Godwin has 23 years of experience in drywall construction. Paul joined MAREK in 2006 at the Houston branch. MAREK is an 80-year-old Division 9 subcontractor with annual sales of 400+ million. Paul managed the Central Estimating department which provided estimates for MAREK's seven branches. In 2010, Marek instituted its BIM program from within the Central Estimating department. This department is now a full time BIM division that currently employs 6 modelers. Paul also manages the Data/Print department which is responsible for downloading, converting, renaming, sorting, & printing all plans for MAREK's projects. Paul is tasked with research & development for BIM, AR, VR, new software for project management & estimating, & field technology. Paul speaks with architects, general contractors, & software companies concerning BIM's overall outlook as well as MAREK's deliverables. Paul gives presentations & demonstrations relating to MAREK's use of AR/MR technology.

Why is
technology
considered
the enemy, or
the devil, in
construction?





IT IS DISRUPTIVE

- Requires Change – Change is the dirtiest word in construction.
- Any change disrupts the normal workflow temporarily.
- New technology that does aid in the actual construction process is deemed inconsequential.

“I will need a computer when it can screw drywall into a metal stud. “



IT CHALLENGES TRADITION

For decades, projects have been completed effectively and profitably without the innovations of today's new technology and software.

If it is not broke, don't fix it.

Why change, this is the way we have always done it and we are doing OK.

How do you
overcome the
stigmatism of
technology in
construction?



Deliver a
useful solution
to an existing
problem with
the least
amount of
disruption.



Where to Start???



Houston, We have a problem.

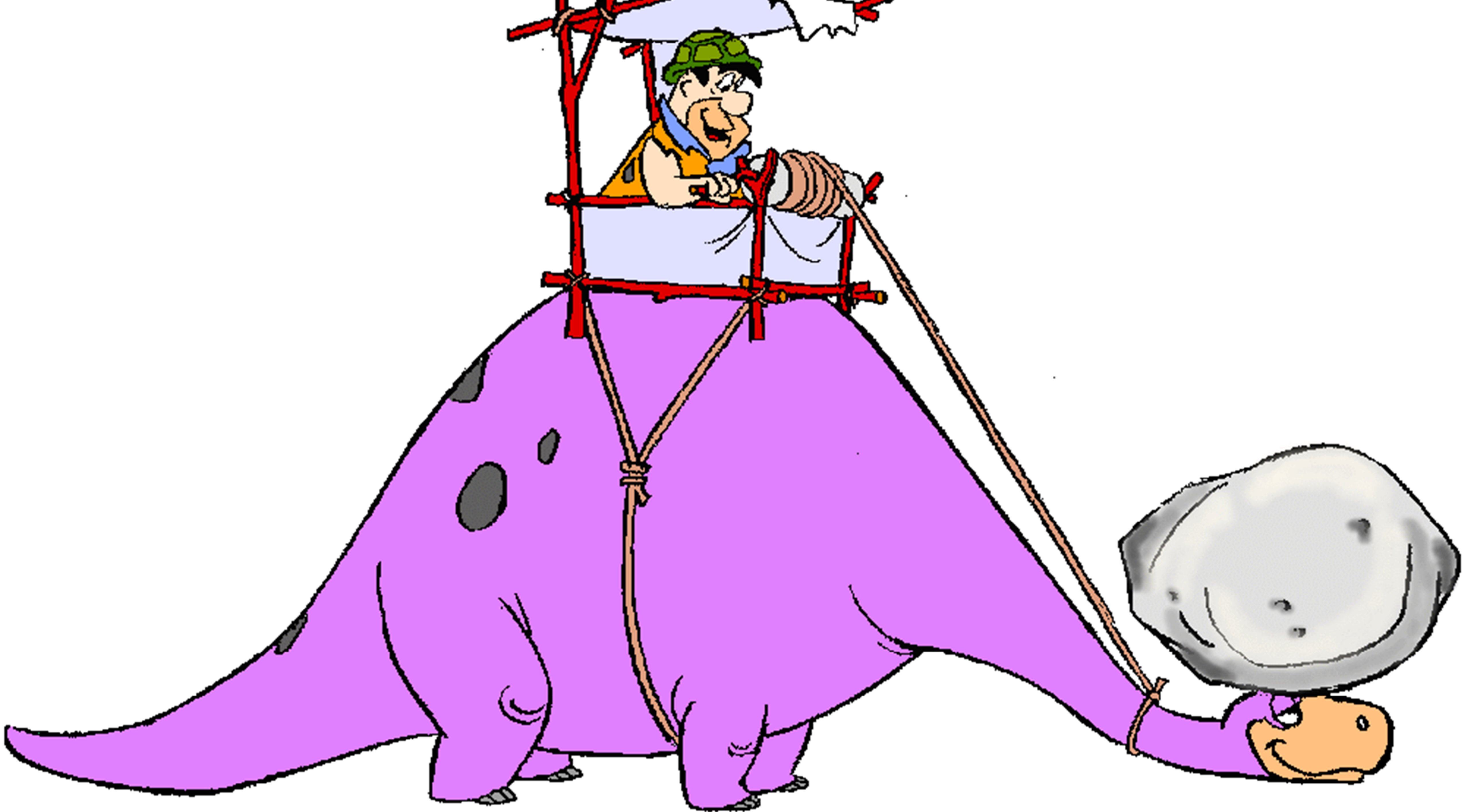


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Then, begin with a realistic assessment of the School of Thought your company has in regards to technology.







Now review the process of issue you are trying to solve.





Is this your process?

Or does this look more like it?



If this is my
process, why do
I need to fix it?

The process
may be great,
but the tracks,
or delivery
method, may
be the issue.



MAREK's Document Management System





DEATH

BY COMMITTEE

What did we do? We Formed a Committee.

Start with a Plan Because:

A goal without a
plan is just a wish.

Antoine de Saint-Exupéry

MAREK's DMC Vision Statement

- We partner with the end user in identifying and helping them to solve their needs.
- Aligning organization as it supports each job – all documents associated with a project throughout lifecycle of a job from creation of job number to archiving.
- Engage, respond and adapt to the needs of the entire MAREK organization as it relates to the process from inception to job closeout
- Including consideration of:
 - Accessibility
 - Unique project circumstances
 - Job dynamics (size, scope, type, location)
 - Customer driven solutions and requirements
 - Evolving technology
 - Infrastructure and data security
- We actively research, learn, and engage with possible solutions to identify when, how, and on what types of projects solutions are effective and warrant implementation company wide.

Goals and Objectives

- Consistent & efficient document organization
- Centralized document storage
- Consistent & efficient document access
- Selection of the best tool for annotation abilities
- Remote access
- Streamline internal and external information communication
- Minimize risks and delays
- Boosts profits



"I have some specific, unknown objectives for you to achieve."

Business Rational

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“Of course, this is a worst case scenario.”

- MAREK currently lacks project document control procedures.
- Multiple methods of document communication within our company is inefficient
- Project Managers & Estimators are currently looking to be trained on a software to annotate documents
- Production teams rely on real time information to be most productive

ROI

- Increased efficiency for project management and supervision.
- Increased employee job satisfaction
- Increased profits from changes and RFI's
- Increase in production from efficient flow of information. Less rework.
- Increased customer satisfaction
- Reduce costs associated with network storage

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"And this is where our ROI became an IOU."



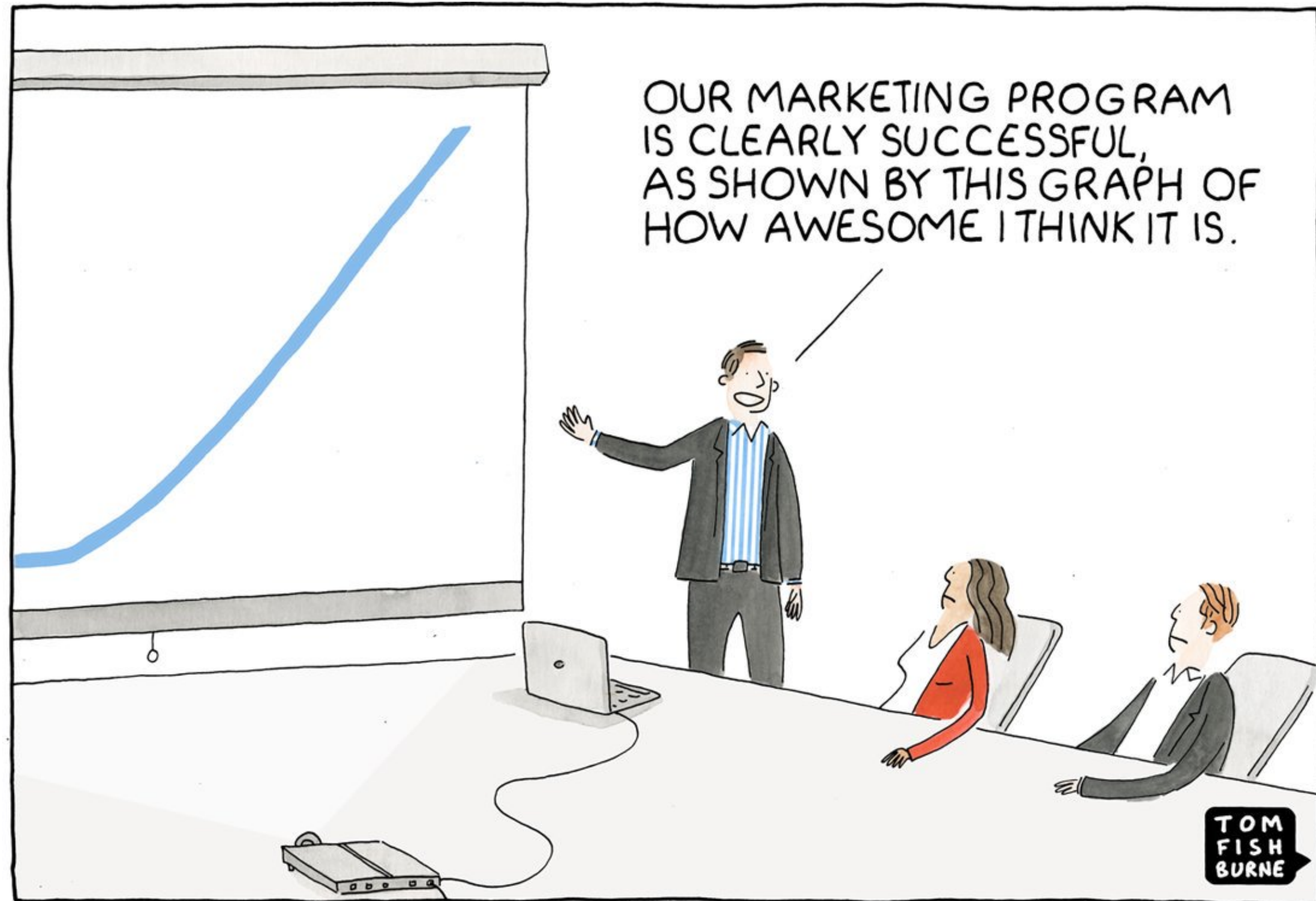
"I'M SORRY, BUT IT SAYS HERE THAT YOU DIDN'T MEET YOUR PROJECT DELIVERABLES."

Committee Deliverables

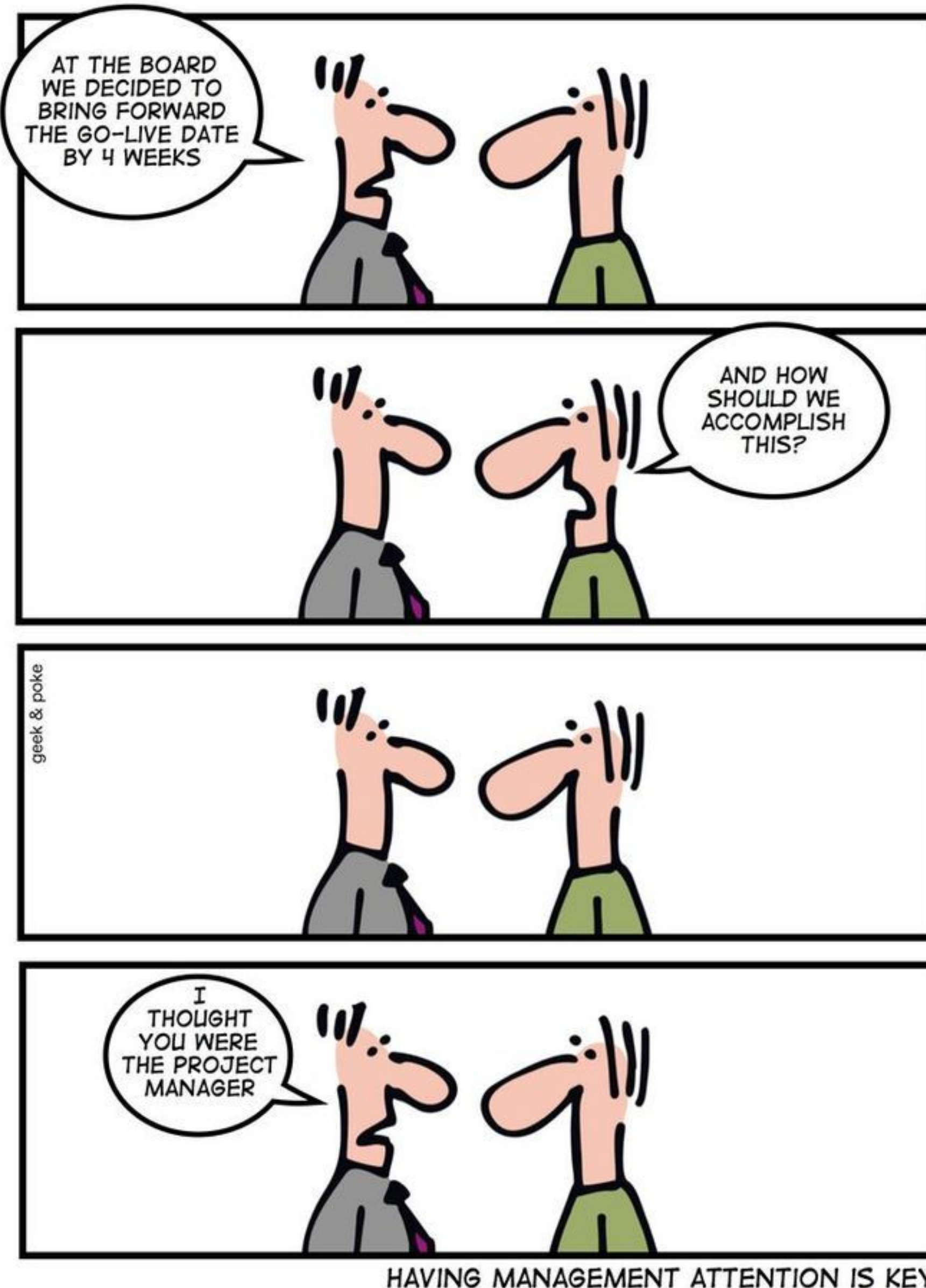
- Selection of PDF editing software
- Written work flow and storage procedures
- Company approved project document storage i.e. plans and RFI's
- Written archiving process and procedures

Success Criteria

- Satisfied stakeholders 90% or above.
- Smooth roll out and easy implementation
- System is adaptable to varied customer procedures.
- Process & platform adopted and implemented by all branches
- Integration with customer platforms.
- Scalable and adaptable to all projects.



Milestones



1. Needs assessment/current state complete ?/??
 - a. Jobs
 - b. Customers
 - c. Software
2. Evaluation and development of Project Needs ?/??
3. Archiving Requirements & Expectations – ?/??
 - a. What do customers require us use and how does that work for archiving?
 - b. What does the operation say?
 - c. What does IT require?
 - i. Storage
 - ii. Access- “pipe”
 - iii. Cost
 - iv. Frequency- daily, monthly, job close
 - d. Who will be on the team? Stakeholders?

Identify Stakeholders

- Field leadership, Superintendents, Project Managers, Division Managers, Payroll, Risk Management/Safety, HR, AP, Project Assistants, Accounting, Credit, Purchasing, Marketing, Talent Development



© Ginger Levin, 2016

Risks, Opportunities, Dependencies



"...and by tomorrow, I'll need a list of specific unknown risks that we'll encounter with this project."

- Customer procedures
- Stakeholder resistance to change / acceptance.
- Poor / Smooth roll out.
- Picking up pricing opportunities.
- Consideration of future growth
- Leader and user adoption and enforcement

Find a Solution that Fits Your Process



Engage the End Users

- Find a group that will actually participate in the process.
- What are they currently using?
- What have they used in the past?
- What do they Like?
- What don't they like?
- What does it absolutely have to do?
- What do you want it to do?

Every group project



Partner with a Company for Your Solution

- The company should be equally invested in a successful implementation.
- Needs to be a flexible solution to allow for customization.
- Solution should fit into your process.



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★ Quick access

📁 BIM

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📁 Our Documents

📁 01 - Weekly Bid Reports

📁 Houston

📁 Project Thunder

📁 Skye's Time

📁 OneDrive - Marek Brothers Systems Inc

📁 AU 2019

📁 BIM

📁 BIM & Data Print Personnel

📁 Expense

📁 Personal

📁 PlanGrid

📁 PowerBI.Client.Files.v3.1.3781

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📁 Quotes and Invoices

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Name

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📁 1. Bid Documents

📁 2. Budgets

📁 3. Change Order Requests

📁 4. Correspondence

📁 5. Design Documents

📁 6. Insurance

📁 7. Material Lists

📁 8. Miscellaneous

📁 9. Pictures

📁 10. Project Worksheets

📁 11. RFI's

📁 12. Schedules

📁 13. Subcontracts

📁 14. Submittals

📁 15. Vendors

📁 16. OCIP

📁 17. Certified Payroll

📁 18. Safety

Date modified

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4/22/2019 7:43 AM

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Size

Search Documents...

Tasks

RFIs

Field Reports

Documents

Photos

Submittals

Team

Settings

Documents (1379)

1. Marek Files

1. Bid Docs

2 Budgets

3. Change orders

4. Corresponden...

5. Design Docs

6. Material List

7. Miscellaneou...

8. Submittals

9. Safety

10. Firestopping

11. Precon

12. Schedule

13. RFIs Affecti...

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ASI

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Specs

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Add New

Export

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<div><input type="checkbox"/></div> <div><div>ASI</div><div>/Project</div></div>	07/25/2018	
<div><input type="checkbox"/></div> <div><div>RFI's</div><div>/Project</div></div>	06/21/2018	
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<div><input type="checkbox"/></div> <div><div>Submittals</div><div>/Project</div></div>	06/21/2018	

Tasks

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<div><div></div><div>3. Change orders</div><div>/Workspace/1. Marek Files</div></div>	02/06/2019	
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Find your Champion

- Must be an end user
- Must believe that change is good, not the devil. 
- Someone that is willing to commit to process.
- Technology oriented
- Able to build bridge between office and field



YOUR JOB IS
"DIGITAL
TRANSFORM-
ATION."



IT'S NOT JUST
ABOUT
DISRUPTIVE
TECHNOLOGY.



WE NEED A
WHOLE NEW
WAY OF
THINKING.



ACROSS THE
ENTIRE
ORGANIZATION.



TOM
FISH
BURNE

THIS IS ONE
OF OUR TOP
PRIORITIES.



WE'RE ALL
COUNTING
ON YOU.



SO, GOOD LUCK
ON THIS SUMMER
INTERNSHIP.



Take your Solution for a Ride

- Test the solution in a real-world situation.
- Find a project with your champion.
- Allow the field the freedom to investigate the solutions capabilities.
- Don't overwhelm the team by trying to implement every capability. Feed them small bites.
- Don't force the issue.



Implementation Time

- Use your test project to build momentum and buzz for your solution.
- Let adoption be organic.
- Create competition between profit centers.
-



Training is the Key

- If you are not willing to invest in training, don't even bother.
- Use your Software Partner to provide the training.
- Tailor the training to meet your needs(do not settle for the canned training package).
- Incorporate your champions
- Don't try to perform the training in-house.



Support

- Create an internal support team for the implemented solution.
- Use the support staff from your solution partner.
- Don't leave the end user to fend for themselves
- Incorporate your champions



Accountability

- Without accountability, there is no successful implementation.
- Accountability is top down. It starts with management.

ACCOUNTABILITY

is the glue that ties

COMMITMENT

to the result.

- Bob Proctor

Old Dog New Tricks

- Age has nothing to do with adoption of good, properly implemented solutions.
- There are skeptics and champions of all ages.
- Don't underestimate your veteran staff.





Food for thought



If Technology is of the Devil,

But as the saying goes, “The Devil is in the detail.”

And the one of the main uses of technology in construction is to deliver
the details as quickly and accurately as possible,

Then could one say Technology truly is of the Devil?



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