

The Continuum:

Keeping Project Information Connected

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Your company is full of data. Some of it is not related to projects (utilities, rent, internet, insurance), but much of it is (estimates, contract dates, labor spend, project plans, drawings, material purchases). That data can be held / found in multiple locations, depending on what it is, who needs it, and who uses it. Retaining and storing that data can be a project unto itself. Depending on the size of your business, you can have three to five people involved in your projects or you can have 15-50! By now you know there is no such thing as a system that does it all and the larger you get, the harder it is to keep the information in locations that make sense for you. Soon you're reviewing:

- How many accounting software seats do I need?
- Who has the master file of the labor and where the people are working?
- What work is on our plate for next quarter? Do we need to bid more?
- Do we keep project documents on our laptops, a share drive, or use an additional software repository?

As you segment the work / grouping in the company, the data / information goes through the same segmentation / growth. Your company may be somewhere between Figure 1 and Figure 2, with Figure 1 typically having information stored independently in station, in the leader's head, and Figure 2 showing an example of how an organization has organized their information

by functions, advanced to having a corporate memory vs. just having the data. Information is often separated for learning as well as for storage.

Recognizing what work needs to be done and how the information about it is stored, accessed, and communicated is very important and cannot be left to chance. In research done on construction sites across the country, it was found that 'Workers encounter obstacles in 89% of their scheduled activities and information about these obstacles only propagates beyond the crew level 50% of the time'. Think about if only 50% of the information in your company is shared across departments (or people, depending on your size). Knowing what information needs to be shared, and having a method to do it efficiently, matters.

Thinking through what data you have is the first step. Referring to a recent article on the topic², think through items like:

- Estimating Philosophy
- Company Pipeline and Backlog
- Contract Terms
- Method of Crew Mix
- Use of Prefabrication and Externalizing Work®
- Procurement Strategy
- Managing the 3Ms: Money, Manpower (Labor), Material
- How you Build
- Change Order Pricing
- Finances / Access to Funding

Then consider, from the groups in Figures 1 and 2, who needs to know what information? All information is NOT created equal. Not sure where to start? Look at the risks in your business, separated into Business Risk, Integration Risk, and Technical Risk. See where the risks and costs are the highest; then work to manage the clarity of communication first. Defining what information needs to be shared across groups requires a decision on where the source of truth is captured, and how the areas link the information, so it's entered as few times as possible and interconnected as efficiently as possible.

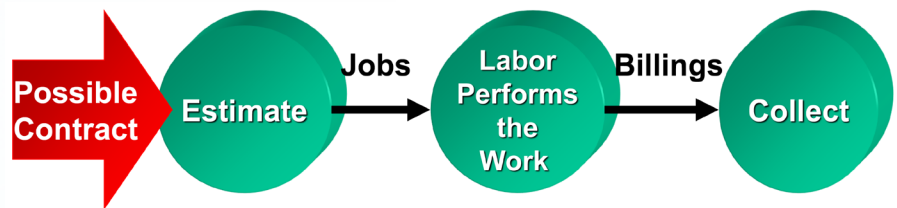


Figure 1: Example of a Traditional Operating Model in a Company

If you find yourself connecting MUCH information between systems, you may have too much segregation of data. If you have one large system that you're working to establish permissions and restrictions relating to information not needed by everyone, then you have too much in one place. One suggestion on how to segregate the functions in your business is shown in Figure 3. Do you have these databases? Do the right people have access to the information needed? Often, the field database is missing from the system; it remains in the field with the field employees and is not available to the system as a whole.

Let that sink in. **The field database may be missing.** Likely the largest part of your labor spend, nearly all of your material spend, and therefore the most money in your business (all 3Ms: Money,

Manpower, Material) may not have a single home. What system is needed to connect and to communicate the 89% of obstacles, when, where, how, and to whom it needs to be directed? Consider:

- Scope and cost stored for reference, including change orders, pending and approved
- Start and end dates (with schedule changes and their responses) correctly stored
- The field / craft work plan
- Obstacles noted daily and categorized for use
- Labor planning at the project, division, and company level
- Notes about the spend on the projects, not just about the past but projections for the future
- Data on how the project was estimated, how the field planned the work, and the actual hours spent

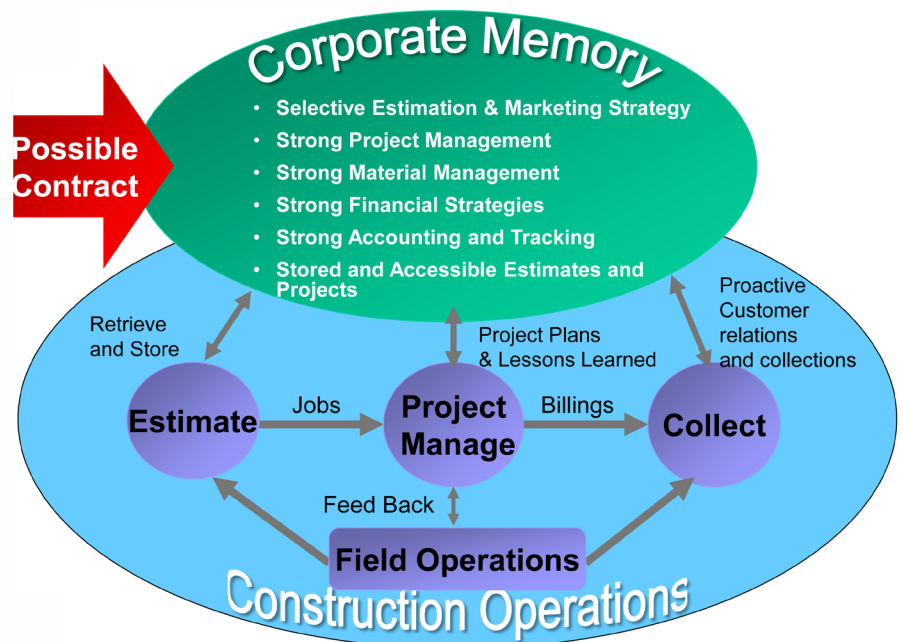


Figure 2: Example of a Professional Operational Model in a Company

Think through how useful it would be to have your data in one place to ‘predict, prevent, and project your job outcomes’³. Imagine project start and end dates in one place, linked to contract value (and a cost code breakdown to use for your billing), having labor planning and productivity. Look for a system that treats your most valuable data to most effectively allow you to project both project and business outcomes. Keeping the field continuum, from estimating through project management to installation and closeout, all focusing on the field and sharing the other information in Figure 2’s corporate memory for reference

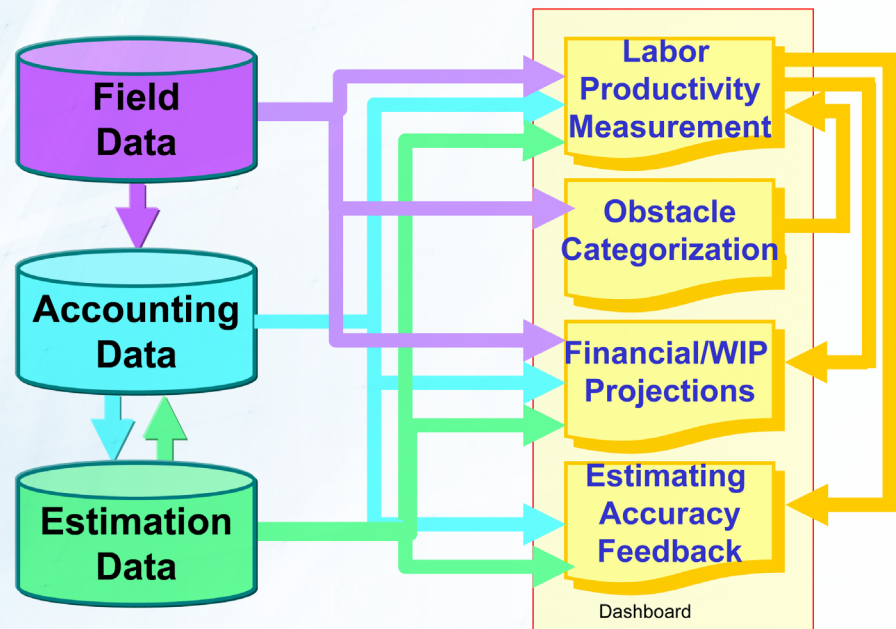


Figure 3: Segregation of Business Functions

Conclusion

The challenge facing construction companies today is not a lack of data, it is a lack of connection between the data they already possess. Estimates are created, contracts are signed, schedules are developed, labor is assigned, materials are purchased, and work is installed. Yet too often the information generated at each stage remains isolated within departments, software systems, spreadsheets, or individual employees. As a result, valuable knowledge is lost, decisions are made with incomplete information, and opportunities for improvement are missed.

The most successful organizations recognize that project information is not a series of disconnected transactions but a continuum that spans the entire lifecycle of the project. From estimating through planning, procurement, installation, productivity management, change management, and closeout, information must remain connected and accessible to those responsible for making decisions. This continuity transforms data from a historical record into a management tool.

The field is where plans become reality and where the majority of project costs are incurred. It is also where obstacles,

productivity gains, schedule impacts, and opportunities for improvement first become visible. Without a structured method to capture, organize, and communicate field information, companies lose the ability to learn, predict outcomes, and improve future performance. The result is a break in the continuum.

Organizations that establish a true field database and connect it to their corporate memory create something far more valuable than a collection of records — they create a system of organizational learning. They gain the ability to understand not only what happened, but why it happened, what is happening now, and what is likely to happen next.

The goal is not simply to store information. The goal is to connect information. When project data remains linked from estimate to closeout, companies can better predict, prevent, and project outcomes. They can make decisions based on facts rather than assumptions, respond to obstacles before they become crises, and continuously improve the way they plan and execute work.

In the end, the continuum is not about software. It is about ensuring that the knowledge generated by the people doing the work remains connected to the people managing the work. When that

happens, project information becomes a strategic asset, productivity improves, and the organization develops a lasting competitive advantage. ⚡

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¹Exploring Information Generation & Propagation from the Point of Installation on Construction Jobsites: an SNA/ABM Hybrid Approach, Moore, Heather; Dissertation for Michigan State University, 2013

²*Your Data, Your Power: Using Artificial Intelligence Safely in Construction* Daneshgari, J. and Parvin, S. MCA, Inc. IEC Insights Nov/Dec 2025

³*Using AI to Predict, Prevent & Project Your Job Outcomes*, Moore, H. Nimmo, P. MCA, Inc. IEC Insights Jan/Feb 2025