How Modern Project Controls Challenge the Status Quo

Digital transformation changes the game. Don't be left behind.

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MAKING THE CASE FOR PROJECT CONTROLS

When you bring up the need for business transformation or project controls, the responses are often lamentably predictable:

- "Our current system is outdated and frustrating to project teams, but it's what we know."

- "We need to change but just don't have the time."

When scouring your business for potential efficiency gains, no area can be off limits. In an industry where even small changes translate into big savings, no stone can be left unturned.

Complexity is growing across all areas of construction. Aligning field and office workers, sharing information with external teams, interpreting vast amounts of data, and making rapid decisions—these all require innovation to be successful. The legacy systems and spreadsheets used throughout the years to manage projects do not allow businesses to grow and adapt quickly in today's market.

Project controls are mission critical. It is this criticality that also makes them difficult to change. It requires a pivot from systems and practices that place emphasis on individual organizations to solutions that focus on projects. Only project-centric solutions—enabling disparate groups to work together as one—can act as a unifying force bringing teams together.

COLLABORATING FOR PROJECT SUCCESS

Project teams want to focus their attention on executing work, not pushing and recreating data across multiple systems and groups.

While technology and new methods, such as building information modeling (BIM) and lean construction, are advancing physical efficiency, some of the tools and systems used to execute the project have not kept pace. The level of effort needed to interpret and report data increases significantly as the project grows. Project teams are burdened with the never-ending task of collecting, feeding, and maintaining cost data in outdated systems that do not support the extensive requirements for team collaboration. The level of effort increases significantly to interpret and report the data. It takes a team to successfully deliver a project, and collaboration is the foundation.

A recent TechValidate survey administered by Aconex (acquired by Oracle in June 2018) explored how organizations use project control solutions. Out of 174 responders, 57 percent agreed that the inability to support collaboration between internal and external teams was what frustrated them the most about their current project control solutions.

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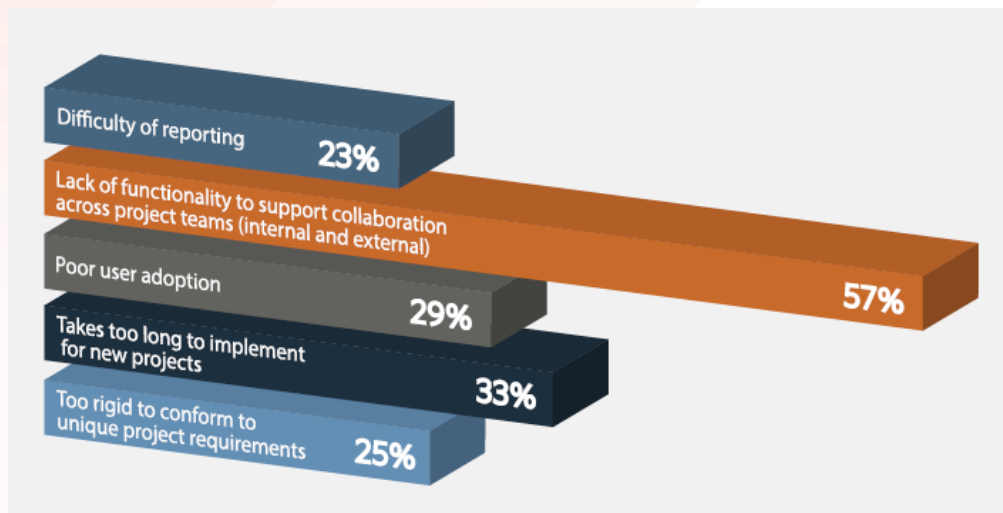**What frustrates you the most about your current project controls and cost management solutions?**

Figure 1. More than half of respondents want their project controls and cost management system to better support collaboration with internal and external teams.

The cost of maintaining the status quo is high because you have to deal with the following issues:

- Maintaining data security
- Ensuring information accuracy
- Hiring and retaining talent to maintain outdated systems

MAINTAINING THE STATUS QUO MEANS BEING LEFT BEHIND

A combined 83 percent of people surveyed cited spreadsheets and email (45 percent) and legacy software (38 percent) as the primary systems used to manage budgets, costs, and contracts. At first glance, it may appear you're in good company in maintaining the status quo. Why the need for change?

The real concern, if you identify with the majority, is in the outlying 17 percent—leaders that have invested in modern, cloud-based project control solutions. Staying with the status quo means being left behind. Organizations leveraging modern, cloud-based technologies are the industry leaders, gaining efficiency and accuracy while transforming the way projects operate.

The perceived cost of maintaining the status quo may seem low at first glance, but the hidden costs for the following issues can add up quickly:

- Data security
- Accuracy of information
- Internal talent to maintain systems

Modern, cloud-based project control systems enable businesses to rapidly deploy new projects, adapt to unique business requirements, and operate leaner with teams using data rather than collecting it.

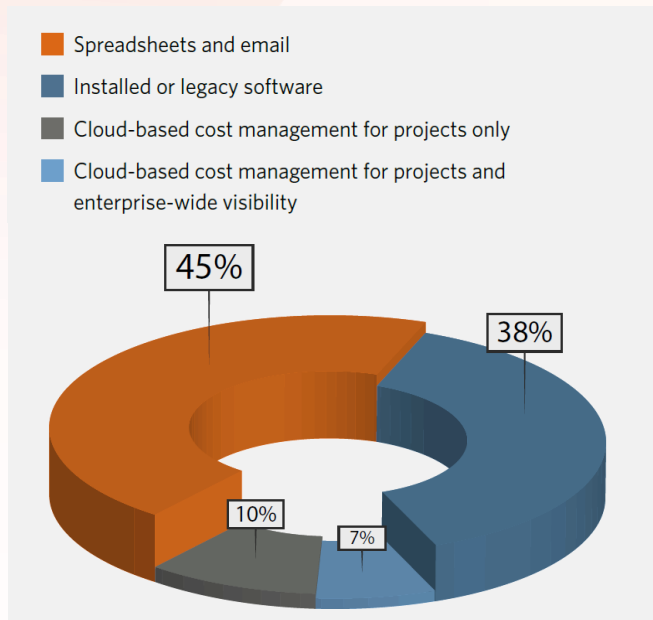**How do you typically manage budgets, cost, and contract administration?**

Figure 2. While the majority of the industry relies on email, spreadsheets, or legacy systems, leaders are adopting cloud-based cost management now.

IF WE COLLABORATE, WHO OWNS THE DATA?

The critical flaw in the industry's traditional approach to collaboration is data ownership. While technically allowing the exchange of information between parties, it is not supported by an environment that incentivizes community sharing. It reinforces the adversarial relationship of "me against you" instead of focusing on the project. To provide protection in the event of disputes, external participants are forced to keep redundant systems with their own version of the truth.

Independent versions of truth translate into added costs impacting the supply chain. It is difficult to quantify the extra hours spent creating and maintaining separate records—such as time spent searching for information or the effort spent resolving communication errors. This lost time impacts the bottom line for every project participant, increasing the cost of performing the work and reducing or degrading performance.

Increased costs can linger on long after construction is complete. In addition to absorbing the inflated supply chain cost, owners frequently lack the critical information necessary to operate and maintain the asset. Because external collaborators are incented to maintain their own records, the centralized project system may not contain the most accurate or complete records, and valuable information remains locked in other systems.

True community sharing takes place only when teams can rely on consistent access to their data and the ability to control who sees it and when. It requires an innovative approach to execution where the unifying force is project performance, with all teams supported equally. With real collaboration, the focus is on delivering the project. All teams work toward a common goal that increases efficiency and benefits everyone—from reducing costs for extended teams to gaining better-quality data for the project owner.

SO MUCH DATA, SO LITTLE INFORMATION

Projects have evolved since the days when vast amounts of data were stored in physical files that required an army to find anything. Today, most project data is stored electronically, but it still can take an army to interpret it. The value in data is the ability to efficiently distill it into meaningful information to steer the decision-making process. Massive amounts of data only make us smarter if we can interpret, understand, and act upon it—in a timely manner.

Hundreds of decisions that impact projects are made daily, and it may be shocking to discover that only 29 percent of stakeholders feel they have access to accurate and timely information.

Choose the statement that best describes your company's reporting capabilities when it comes time to make an informed decision.
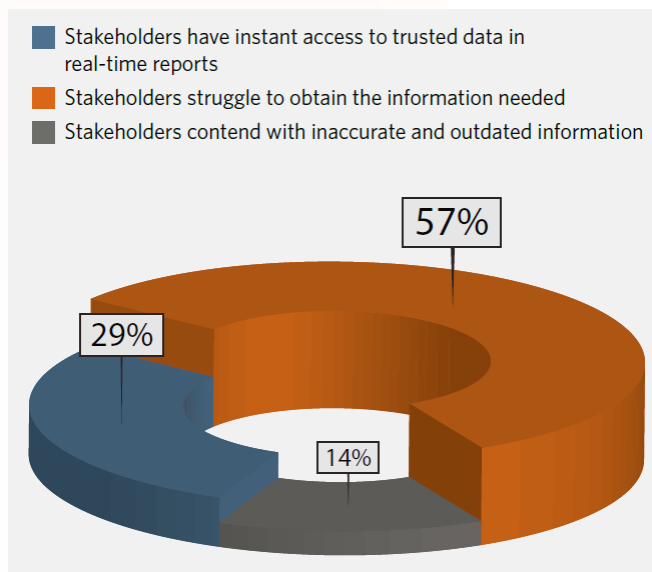

Figure 3. More than half of respondents struggle to obtain the information they need to support their project.

Informed decisions require accurate data that provides early warning of potential issues. When you can quickly identify and resolve problems, you minimize their impact on the project.

ERP IS NOT THE ANSWER

Enterprise resource planning (ERP) systems have long attempted to expand their capabilities into the realm of project controls—with dismal results. Why don't these systems easily share data? The answer is rigidity. ERP requires rigidity because the rigor of corporate financials requires "hard math" capturing what has happened.

But projects also require "soft math" to explore what might happen—potential alternatives and solutions for change—and to understand impacts to the project. Projects are in a state of perpetual change that requires the flexibility to account for everything in flux, as well as capture final decisions.

Informed decisions require accurate data that provides early warning of potential issues. When you can quickly identify and resolve problems, you minimize their impact on the project.

The flexibility that project teams require and the rigidity that finance teams require cannot coexist in a single system. Would you drive your car relying on the rear-view mirror? No, that would be disastrous. But the same applies to managing your project with an ERP system. The simple truth is that organizations need both types of systems, and integration between these mission-critical systems is the only meaningful answer.

Integrating the mission-critical systems that support a project delivers the following benefits:

- Reduce overall risk by introducing automation
- Free resources to focus on project delivery
- Gain access to real–time reports

WHAT'S RIGHT FOR YOUR COMPANY?

There is no one-size-fits-all approach to integration—the journey begins with the end goal in mind. What do you want to accomplish? How can you increase efficiency and accuracy? Do you want to provide teams with the tools they need or force them into adopting financial applications?

Integrating mission-critical systems is no longer considered a luxury but a necessity to drive cost efficiency and reduce risk. The cost of integration increases with the level of complexity, but the benefits increase as well:

- Lower overall risk by introducing automation

- Free resources to focus on project delivery rather than data gathering

- Gain access to real-time reports

LEVELS OF INTEGRATION TO CONSIDER

Fortunately, you can choose the level of integration that works best for your company and project.

Manual data exchange
This includes data manually exported from one system and imported into another—simple exchanges, such as actuals from a finance system exported to CSV format and imported to a project cost controls system. Timing for these exchanges is typically monthly to assist with month-end reports.

Point-to-point integration
Built using APIs between two systems, these hard-coded integrations can be either automated or manual, and require user input. An example would be the import of schedule data into a cost control system. They are typically prebuilt, which means they are easy to set up but will not provide flexibility in the type of data exchanged or configurable parameters.

Middleware platform
Middleware platforms connect multiple systems using software that sits between systems. It controls the exchange of data, the frequency of exchange, and business rules for each system.

ARE YOU READY TO START CHALLENGING THE STATUS QUO?

Consider these five questions when evaluating modern project control solutions.

- **Will it keep my data safe?**
  Cloud-based systems are secured by teams that solely focus on data safety and security. This contrasts with typical IT departments that must oversee a variety of applications and systems across the entire organization.

- **Is it easily configurable by end users?**
  One size does not fit all. The system should support your current business process with flexibility to scale to support future needs.

- **How does it increase my efficiency?**
  Modern project control systems must support the way project teams work and the collaboration necessary to keep information flowing. They need to eliminate duplicate entry across multiple systems and reduce risk by increasing accuracy.

- **Will teams enjoy using it?**
  Adoption of a system is as important as functionality. It must be used to provide real benefit. Teams tend to find workarounds for difficult systems; data gets locked away in spreadsheets and email, making a single source of the truth impossible.

- **How easily can it be deployed?**
  The ability to rapidly deploy new projects allows teams to execute immediately and reduces the risk of errors.

A Note to Project Owners and Contractors

When considering a modern project control solution, ask yourself these additional questions.

Owners

- Does it support the entire project lifecycle, assisting in the operation and maintenance of the asset?
- Does it support stakeholder and regulatory visibility requirements for projects?
- Can I track projects across my portfolio and organization?

Contractors

- How easy will it be to get my supply chain vendors on the system and support them?
- Does the system enable me to control my data?
- Does it make it easier for staff to focus on the project rather than on data?

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North America: +1.800.423.0245   APAC: +60.3.2299.3600   EMEA: +44.(0).870.8.768711

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