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construction data solutions

EBOOK

LEVERAGING ADVANCED DATA ANALYTICS FOR CONSTRUCTION PROJECT SUCCESS

Why is there never data insight?

Many construction projects can be a black hole with little to no insight into whether the project is on time or on budget. But why is project data as a whole, or the barrier to entry for the required data, so problematic? It is primarily due to legacy business trappings resulting in too many siloed systems, too much disparate data, and insufficient IT people or IT team members with highly specialized data integration and reporting experience.

Do any of these problems sound familiar to you? And if so, how do you solve the problem?

COMMON DATA AND TECNOLOGY PROBLEMS

Selecting the Right Software

Choosing technology to address construction-specific requirements and workflows is never easy—primarily because most software available does not meet the needs of the construction industry. In addition, the software you choose must address the required in-depth understanding of your company's systems and processes, be capable of evolving alongside company growth, and give detailed insights into its impact and ROI. After all, any newly chosen software or technology must first represent an adequate return on investment. But how is that calculated?

Construction companies must identify all aspects of their technology stack. First, interoperability plays a crucial role in any section—namely, the new solution must connect and work with the old. Then, one must consider additional factors such as migration times, potential downtime, training, user adoption, and so much more.

Lack of Timecard & Payroll Integration

Seamless timecard and payroll integration is integral to every construction project. So why is it so difficult to implement correctly? The most contentious part of timecard and payroll management is that the processes often involve out-of-date systems. Whether mired in paper files and processing, outdated manual entry, or simply lack of insight, i.e., knowing how many hours, overtime, allotted time vs overtime and so on, doing so without a digital solution will never get easier.

Inputting Data Into Multiple Legacy Systems

Ask any finance person. The ability to simultaneously input data into multiple systems that don't inherently speak to one another is never a good recipe for success.

It can mean frustration, too much time spent on manual data entry, and a disconnect in reporting and accuracy. In fact, how does a company manage hours with applied costs, planned versus actual dollars spent, or even cost-to-date against schedule if the systems aren't connected?

Reporting Data From Multiple Legacy Systems

Disparate data and systems result in only one thing: inaccuracy in everything. Much like inputting data into legacy systems, running reports or data exports is much of the same old challenge—time and manual efforts better spent on more pressing business. Whether it is work-in-progress (WIP) reporting, customer billing, or internal or external progress reporting, having accurate data is imperative to success.

Challenges with Compliance Reporting

The 'good old days' approach of manually managing data and producing paper-based reports is no longer adequate. While working in a digital environment may seem more complicated, electronic systems better manage and promptly generate the requisite data to adequately demonstrate compliance or lack thereof, the latter of which enables the initiation of corrective measures. Ensuring compliance, of course, is critical to business success both from a regulatory perspective and ensuring that all employees, contractors, build standards, specific labour laws and more are measured and managed appropriately.

Fully integrated electronic systems (new and legacy) provide the capability to link and present all relevant data - a single source of truth - and generate results in readable formats such as PDF, Excel, CSV, and more.

Data Insights Take Too Much Time & Resources

The unfortunate reality is that though data insights would be a tremendous benefit, the time and resources required to garner these insights are out of scope for most construction companies. As a result, it is not uncommon for construction companies to struggle with creating a complete picture of the business through accurate data, meaning there is a huge blind spot in company analytics. This blind spot can ultimately negatively impact productivity, budgeting, and the ability to deliver projects on time and, in the final analysis, a company's profitability.
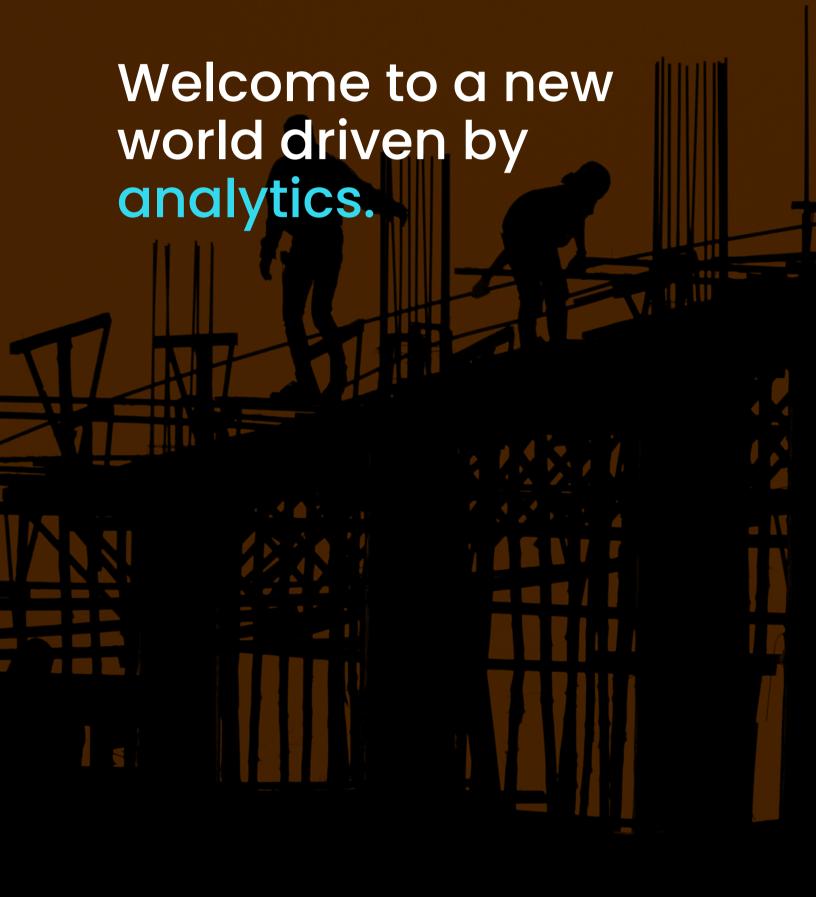
No Out-of-the-box Applications

Unfortunately, the construction industry is behind in technology advancement and lacks access to platforms that many other industries enjoy and rely on to propel their businesses forward. Perhaps it is an oversight of tech firms in not fully grasping the unique workflow requirements of the construction market. Or maybe it's the lack of perceived interest from the construction industry itself.

But regardless of the reasons, the industry continues to suffer real and significant consequences. Without the right tools, companies are far too often left struggling with technical barriers, trying to design and implement custom features, create interoperable functionality, and more. Paired with these aforementioned technical barriers, most construction firms also lack the bandwidth and skillset to tackle these issues—the inevitable outcome being a lack of insight comparable to the rest of the business world.

Welcome to a new world driven by analytics.

Leveraging Advanced Data Analytics Has Never Been More Accessible

The construction industry has historically been apprehensive when adopting new types of technology. However, data insight and analytics technologies are proving to have a ground breaking impact on risk reduction. These technologies enable companies to leverage existing software (in which they have already invested) to achieve better results, reduce budget overages, and allow current and legacy systems to streamline seamlessly.

With the ever-increasing ease and accessibility of data integration—investing in advanced data analytics is the way of the future for the construction industry

Navigating Technology

Happily, your struggles with technology can end. You need to ensure that your technology stack is fully interoperable, usable and configurable, resulting in faster reporting, better consolidation of data, and less time spent managing systems instead of the business as a whole. But is that easier said than done? It can, on the contrary, be easier done than said!

Your first step: engage an in-depth Technology Advisory Service. An expert will help you clarify/ articulate the problem you are trying to solve and help you identify your ideal outcome. In the next step, the advisory expert will help you and your team select the right new technologies to meet your needs while ensuring that the new technology easily connects to legacy systems to provide future-ready migrations when necessary.
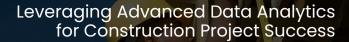
Modernizing Your Business Through Data Integration

Gone are the days when every report resulted in gruelling hours, lost time and productivity, and archaic manual processes. The solution: a Data Integration Service designed to identify and integrate all critical data systems and software platforms into one holistic reporting ecosystem.

This service will enable you to immediately reduce your time and effort to input data and create reports instantly without effort. Regardless of the system, software, or workflow, your users should have access to instant, highly-accurate data reporting, including:

➡ Job hours
➡ Job cost
➡ Actuals to budget
➡ Overtime
➡ Allotted time vs. overtime

➡ Work-in-progress (WIP) reporting
➡ Customer billing
➡ Internal progress reporting
➡ External progress reporting
➡ Subcontractor Analysis Reporting

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Building More With Less
Through a Single Source of Insight

By streamlining your data into a single and powerful connected ecosystem, you unlock the patterns behind optimal performance.

You can accomplish this by choosing a partner and service that will help configure your systems to enable data interoperability, facilitate ease of use, and create a unified view of your data.

The correct service will ensure your company can make the most of your data across an entire project lifecycle—giving you the critical business intelligence you need to improve labour and material forecasts, find and fix field issues before they become a problem and deliver projects on time and on budget. The outcome:

➡ Ability to focus on the metrics that matter

➡ Save time with simple and easy reporting

➡ Reduce errors from manual data entry

➡ Make better decisions with accurate data when and where you need it

➡ Reduce risk by finding and fixing field issues before they happen

Application Development:
Your Exact Workflows Solved

Of course, many platforms can accomplish most of the required business tasks—but can fall short when addressing highly-unique construction data requirements. A robust application development service will enable you to identify your most pressing workflow challenges and implement fully customized applications that address your exact business needs.

Whether you require custom modules within a specific system or interoperable apps that enable data to flow through multiple platforms, creating and maintaining custom applications and platform modules for enhanced business reporting is the way to go!

Success Comes from Data

The optimal path to success is making better decisions through access to the correct data at the right time and where you need it.
The proper data environment means:

Lower CAPEX

Invest in only the technology you require.

Rapid Results

Reduce the risk of spending money without getting desired results.

Better Decisions

Get the exact data needed to make better business decisions.

Reduce Risk

Find and fix field issues before they become significant problems.

Learn how Aedo can help you improve your construction operations and your bottom line.

Book Your **FREE** Consultation Now!

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