

The Disjoint Between Project Controls and the ERP

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Over the last 15-20 years I've had many a good debate on the merits of using mainstream ERP systems to manage project finances. Of course, the more accurate term is project cost controls, as opposed to project accounting, as cost engineers know these things to be discrete disciplines.

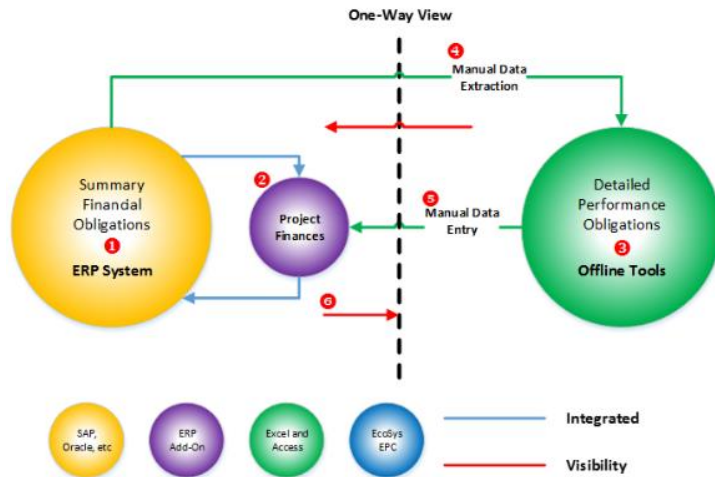
The confusion stems from where they overlap; that grey area of backward-looking data most often referred to as Actuals. But Actuals are merely a commodity to professional cost engineers who dedicate 95% of their time predicting future outcomes, not counting those of the past. It's right here, in this grey area, where ERP vendors perpetuate the myth that their toolset was built with both functions in mind.

Pulling the argument into focus, how many AEC/EPC, Oilfield Services, and Construction firms can say all of these statements are true?

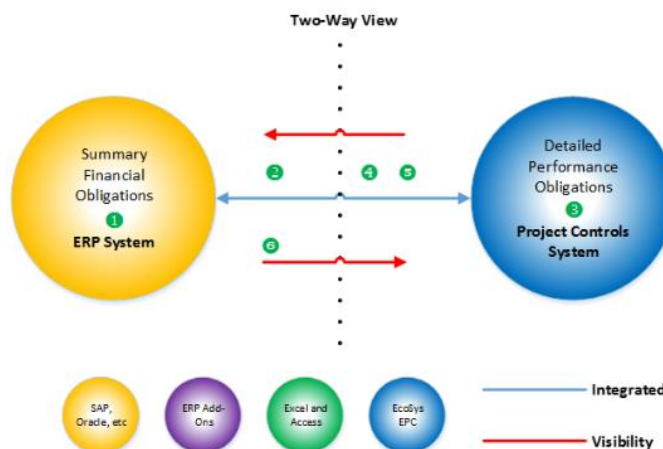
1. There is a high level of cost predictability across the project portfolio, and revenue write downs are uncommon. Forecasts are updated monthly for more than 90% of all projects.
2. There is a standard project controls platform across the enterprise, and project managers:
 1. are happy with the tool, using it without complaint
 2. don't waste any time manually extracting data from the ERP
 3. have no need to use offline Excel spreadsheet
3. Executives and business managers have full visibility into the status of project estimates, budgets, changes, trends and forecasts. Because of this they make decisions quickly and precisely.
4. Because of the high visibility and tight integration through the project lifecycle (bid > award > execution > close out), project audits are targeted mainly at projects falling outside the bounds of standard performance indicators, e.g., Productivity/CPI, SPI, TCPI, Cost Variance, Burn Rate, and Contract Compliance. Therefore audits aren't disruptive.
5. Contract compliance is very high, e.g., budgets and forecasts from contracts, change orders and pending changes are always current due to strong governance and separation of duties. This ensures revenue recognition is always in accordance with FASB and SEC guidelines.
6. They're compliant with FASB ASU 2014-09 for percent of completion revenue recognition, and with ANSI 748 Earned Value Management for relevant government projects.

Experience says very few companies can claim all, if any, are true – reason being there's a massive disconnect between financial management and project cost management. It's most evident when the real work of project cost controls is performed offline, outside the ERP projects module, in that realm of unbridled freedom we know as Microsoft Excel.

While progressive companies have implemented Enterprise project controls tools to sit alongside their ERP, others are bought into the messaging from the ERP vendors. The following illustrations should help remove any doubt.



- 1 Due to ERP System inadequacies, project financials are often managed at a high level
- 2 To support forecasting and revenue recognition processes, ERP add-ons are often used but are still serving the Finance function, not the Projects function
- 3 Project managers are forced to use offline tools to meet the performance obligations of their clients. These tools are many, varied, and uncontrolled. The costs of maintaining these tools is significant, albeit hidden.
- 4 Project Managers waste excessive time manually obtaining commodity data from the ERP, e.g., commitments and actuals
- 5 Even worse, the results of their detailed analyses must be double-keyed back into the ERP
- 6 Finance and Business managers have no visibility into the underlying systems and processes and must trust that projects are being managed in accordance with standards. Auditing is time-consuming and costly.



- 1 The ERP System need not accommodate detailed project management processes, thereby avoiding costly ERP customization.
- 2 No longer is there a need for the ERP Add-On to support project finance management.
- 3 Project managers manage projects in a purpose built commercial tool that enforces standards across the entire projects portfolio. The tool is used willingly because it was built for best practice project controls.
- 4 No longer do Project Managers waste time extracting commodity data from the ERP because it's updated daily via automated integration.
- 5 Project financials roll up in the Project Controls System and are automatically fed to the ERP at the required level of detail. No more double keying is needed.
- 6 Finance and Business managers have FULL visibility into the underlying systems and processes and can easily audit against published standards. This new visibility drives positive behaviors across all projects.

In my time as CIO of a project management and controls consulting firm, I was responsible for a landscape similar to that in figure 1. I was responsible for developing the project finances module depicted, and we developed it from scratch. It served the needs of our Finance organization and was loathed by our Operations function. Subsequently, as head of the IT Consulting business unit in that same company, I experienced first-hand the pain I had inflicted on the business. I resorted to using my software development resources to build offline tools required to properly manage our projects. What a hypocrite! Though in my defense, there were no good Enterprise project controls tools on the market 8+ years ago.

Today I'd have the Enterprise project controls system in figure 2; effectively serving Finance and Operations. My detailed performance obligations would roll up to my summary financial/commercial obligations. I'd be managing the project first and the money second; because managing cost, price, revenue, margin and cash is merely a function of good project management and controls. I'd allow the Operations/Project managers to determine the right level of detail for their project, provided they could roll up to my core coding standards supported by the ERP. They wouldn't want (much less need) to

manage in Excel, and they'd spend more time managing the project and much less crunching numbers and double entering data.

I'd then change my title to Chief Hero.