

A large offshore oil rig is illuminated at night against a dark, cloudy sky. The rig's complex structure, including cranes and platforms, is lit up, and its reflection is visible in the dark water below. A flare on the left side of the rig is emitting a bright flame.

COVID and control:

how automation can
reduce energy project
cost and risk

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In a world where COVID and control together seem an oxymoron, **Steven Bruce, Product Director** at Idox shares his insights into where and how energy players can exert tighter control over projects to reduce cost and risk.



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As oil demand recovers slowly, many operators have kept significant CAPEX and OPEX projects in a holding pattern. However, as of August, demand had returned to 89% of its pre-COVID level and by the first quarter of 2021, demand may recover to as much as 92–95% compared to pre-COVID levels, according to IHS Markit. As recovery looms, the energy industry is looking for ways to reignite their projects to spur economic recovery – one with efficiency and productivity at its heart. Digital technologies that help automate laborious manual tasks while supporting engineers, suppliers and project managers to be more self-sufficient could offer a wealth of benefits.

Right time, right information

Underpinning the success of any large capital project is ensuring that the right people have the right information at the right time to make informed decisions. Inefficient document control can often be the bottleneck of an otherwise well managed project. In times past, companies would choose between hiring an army of document controllers to ease congestion or throwing millions of dollars at a custom management system to smooth the crunch.

Now, with years of engineering management software experience under the industry's belt, out-of-the-box workflows that have distilled those development learnings and built in best practice at the same time can be obtained for an affordable price. That's a big leap given the thousands of craft days and millions of pounds lost to rework due to poor document control every year. However, with COVID-19 continuing to exert pressure on both human resources and project costs, digital transformation can offer a means for industry to manage costs more tightly and improve the quality of work while reducing risk.

Automated document control

It's an age-old problem. Despite the technological advances that have made it possible for teams to connect and collaborate while working remotely, document controllers are still spending hours of their day chasing up engineering reviews and hunting down documents that have seemingly vanished into thin air. But what if automation could implement a self-service system that automates control over the distribution of the hundreds of thousands of engineering documents that are created, revised and circulated on any one project.

As an example, through automation engineers can send their own reviews and the supply chain can submit RFIs without needing the expertise of a document controller. A digital distribution matrix will innately know who needs to be involved in the review or RFI, calculate deadlines and send reminders for open tasks to avert missed deadlines. Instead of the review being sat in a document controller's inbox waiting to be forwarded, it lands directly in the inbox of the person that can review the document or help answer the questions. It sounds simple but we've seen examples where the turnaround for a request for information has come down from seven days to three, because the process of getting it to the right people, and back again, was entirely automated.

In a similar vein, circulating the right revisions to suppliers is a particular pain point on many projects. Send too many updates to a fabricator and you'll incur a big bill, send too few and you risk paying for rework. Again, the system can do the work by automating the transmittal of only the documents needed by the suppliers as soon as they are revised. This significantly reduces the engineering document control overhead associated with keeping constant tabs on who has received what, along with reducing the risk and cost of rework due to out of date content.

COVID-19 is also accelerating the move away from paper copies by digitalising the binder and delivering paper as a PDF direct to engineers' devices instead. Delivery can be tailored so that workers only receive the documents most relevant to their work package. For those project managers still using hard copy binders, automation can offer a helping hand by highlighting which copies have changed since the binder was last updated.



Streamlining a project's future

On a large greenfield project, the capture of engineering tags for supplier documentation is another laborious manual task. It's an inefficient process that takes engineers away from their core competency of, well, engineering things. It's not a simple fix either; a large project might have 50,000 vendor documents where manual extraction would take thousands of days. Not capturing this data and making it part of the information handover may save time on the project, but this is a false economy that results in an even greater cost in downstream operations.

Thankfully, the industry is increasingly moving towards mandating tag to document data as part of handover, helping to deliver time and cost savings well into the future. Making use of an automated extraction engine and tag centric viewer can reduce the time needed to extract and validate tags by 80% and the time it takes will only decrease as machine learning and natural language processing techniques improve. This turns what could have been a potential project threat and source of client frustration, into a competitive advantage. In addition, automation is also helping the industry to move to better standardisation for the handover of information by improving compliance as well as through the standardisation of processes and tools.

COVID-19 has incentivised most energy companies to take stock, with some left considering whether accepting schedule delays and budget overruns can continue particularly in the face of growing pressure to combat climate change. Automation can make an enormous difference at every stage of an energy project – driving efficiency, reducing costs and rework and improving schedule adherence while supporting staff in their respective roles. Applied appropriately, digital technologies can be the cornerstone of the energy industry's economic recovery.





For further information on how we can help you reduce costs on your energy projects, please visit [idoxgroup.com](https://www.idoxgroup.com) or email marketing@idoxgroup.com

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