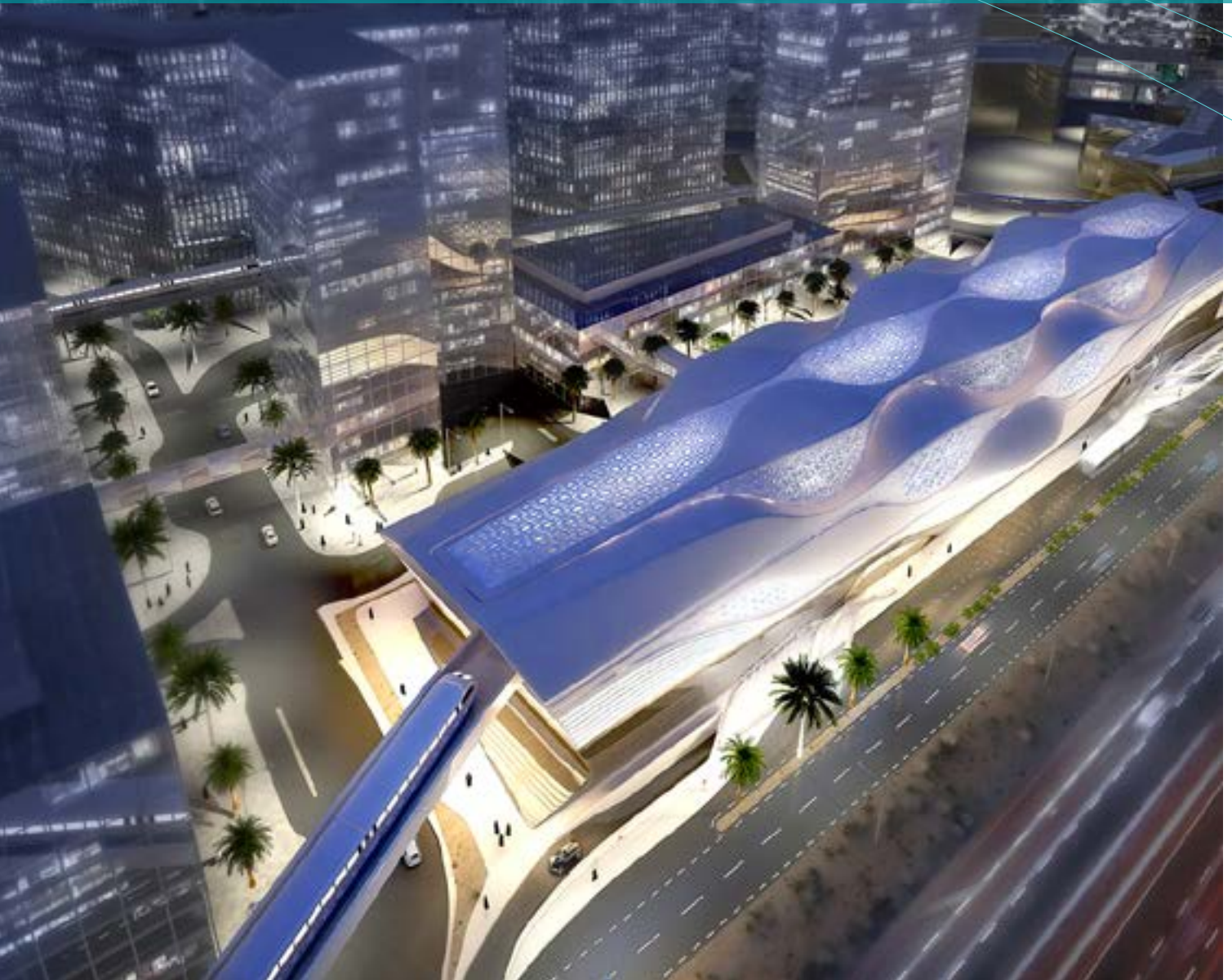




Commissioning Insights

Author: Mark Rawlings





Expert Guidance

What tips can you recommend for someone that you'd only share with a close friend (and everyone reading this these insights)?

Commissioning Management Administration – What may seem like a dull task is a vital part of managing the process and may even determine the overall success of the project. An up-to-date and informative Commissioning Activity / Progress tracking record is something that the entire project Commissioning Team benefit from. The implementation of dashboards to Commissioning Activity Sheets is something I always incorporate, which makes information and progress easily understood by all parties. Recognise Management Soft Skills – A Commissioning Manager should also be able to provide leadership, be able to properly listen and provide feedback where possible. Being able to communicate at all levels is important, particularly in the GCC region where we interact with numerous cultures, nationalities and mindsets! A degree of empathy and levelheadedness is something that is also required, particularly in those tense meetings.

Commissioning common Pitfalls or Problems

What are hard-to-spot pitfalls that are critical to avoid?

Hard-to-spot pitfalls that I typically see on projects in the GCC region are as follows:

1. Equipment such as Automated Hydronics (PICV's, DIPCV's etc.) and Variable Air Volume (VAV) controllers being installed without following manufacturers guidelines. A project I recently visited was having issues with the flowrates from the VAV's, the balancing teams were measuring different volumes vs. the VAV feedback. The VAV provider was blamed and forced to attempt to recalibrate the instruments to achieve the same volumetric flow rate as terminal balometer measurements. The problem ultimately lay with the VAV boxes not being provided with enough duct straight to accurately measure the volume of flow and the ductwork was not pressure tested. A significant amount of leakage was occurring between the VAV and outlet terminals – causing large discrepancies in the flow. Both of these pitfalls were clearly mentioned as pre-requisites to installation by the VAV manufacturer.
2. Testing and balancing technicians and engineers attempting to verify systems and offer for inspection to consultants without following the proper procedure to ensure the accuracy of results. Too often I have found that measurements have been recorded without an actual correction factor obtained, this can make a huge



difference in the result recorded. It is often the case that the engineers are aware of the procedures, but in an attempt to save time, don't verify a factor or use the "magic number" of 0.8 across all measurements. A recent project I visited was having issues achieving design flow on a large toilet extract system, the balancing contractor blamed the MEP contractor for leakage as the main traverse was achieving 105%. Meanwhile, there was no factor obtained on the 150 diameters spigots! Measurements went from 85% at terminals to 105-110% due to their low volume design. This was a perfect example of the importance of correction factors.

Commissioning Predictions

Q: Looking out 3 to 5 years, beyond the obvious trends, what do you think will be the next big change in your industry?

I believe big change is already happening in the region, the definition and importance of Commissioning Management and the skill set required become more cognisant to industry leaders and client's day by day. I believe the CSA has had a large part to play in this also, providing a recognised standard to the industry and ensuring the development of all levels of Commissioning staff – from Assistant to Manager!

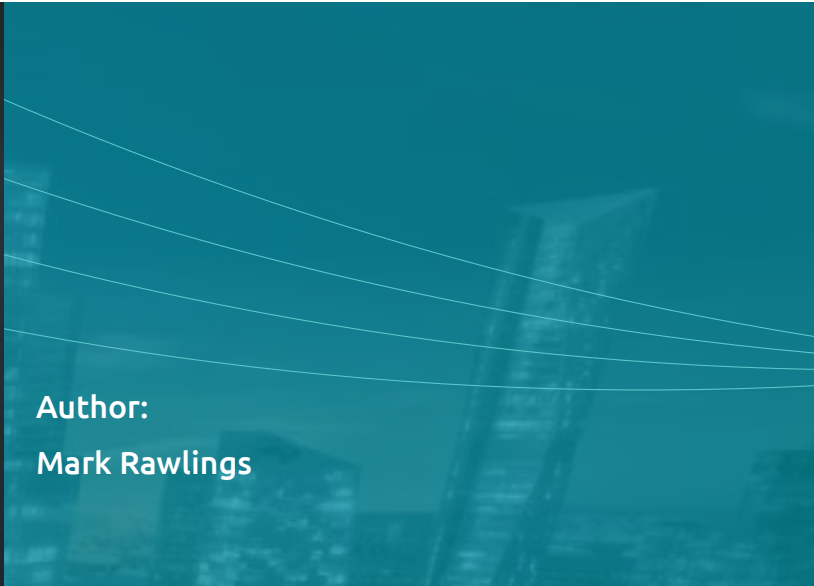
In 3 to 5 years I expect the roles and responsibilities of various parties on a project to be more clearly defined. Due to the scale and size of the projects here, often referred to as "Giga Projects" the contractual relationships and communications routes in the commissioning process often become unclear and misunderstood. The implementation of strong Commissioning Plans and Commissioning Specifications is already paving the way for this.

On the lighter side - Commissioning Mishaps

Can you share a personal short event or mishap (commissioning or management related) you can think of that still makes you laugh to this day (maybe not at the time)?

A mishap that always makes me laugh is when I pick up on an engineer or technician "bending" the truth. There are numerous "tricks in the book" to help your readings or measurements meet the requirements, luckily, most experienced Commissioning Managers are also aware of these!

Another mishap that springs to mind is during my earlier years as a technician, as I drove off from the project site, I left the project file on top of my vehicle. My colleague and I had to spend the next 15 minutes picking up what can only be described as a confetti of important testing and commissioning documentation and results.



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Mark is MEP Commissioning specialist with 11 years of experience, 6 years of which are international and 5 years GCC regional, in the building services industry. Having worked on an extensive and diverse range of projects throughout the UAE and UK.

Mark started his career as a Commissioning Assistant and has progressed through the Commissioning Specialists Association path of development via the distance learning courses and project experience from Grade 1 to 5. Currently, he's working towards achieving Grade 6.

