



Dar Al Riyadh Insight #60

Configuration Management – Emerging Opportunity Areas

Dar Al Riyadh Insights reflect the knowledge and experience of our Board, executives and staff in leading and providing PMC, design and construction management services. Dar Al Riyadh believes in the importance of broadly sharing knowledge with our clients and staff to improve project outcomes for the benefit of the Kingdom of Saudi Arabia.

What are some emerging opportunity areas in configuration management?

The convergence of “big analytics” with greater lifecycle focus and valuation of data acts to increase the importance of robust and accurate dynamic system baselines. Emerging technologies are acting to shift the role and importance of configuration management. New opportunity areas are being created for configuration management adding to both its importance and value in the world of large complex projects. Some specific opportunity areas include:

- Application of artificial intelligence (AI) to undertake required impact assessments potentially creating new opportunity points for further optimization. Said differently, if a change is required should it not have the best possible effect.
- Creation and utilization of dynamic system models, allowing us to see in near real time, the broadest possible set of impacts arising from an changed configuration or even the prospect of making one
- Shift from a document based configuration management approach to an information based (vs. just data driven) configuration management approach
- Creation of a deeper systems knowledge framework utilizing AI to collect and understand the patterns and behaviors of our project system as it is subject to change. This will add a level of resilient understanding that can add value at a later stages when the project is called upon to perform in an off normal environment or operating mode
- Fostering the creation of a more valuable digital twin informed by the evolution of configuration managed structures, systems and components
- Validated asset model for the balance of the project lifecycle

Summary

Configuration management provides a set of tools for maintaining the integrity of the technical concept. Its application has evolved since its introduction in the 1950's and as seen in the preceding discussion of emerging opportunities is likely to continue to do so. Configuration management is a tool with growing importance in delivering large complex projects.