Dar Al Riyadh Insight #21
Flows in Large Complex Projects –
Contingent Execution

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.

One strategy for mitigating the impacts of unexpected or unplanned for flows laid out in the previous Insight was Contingent Execution. This strategy requires flexible contract vehicles which are all too often lacking in the delivery of large complex projects.

Contingent Execution

Large complex projects require an increased focus on "flows," importantly recognizing that even in the most robust plans variability may require related tasks to be either accelerated or delayed to reflect project realities. This variability is made more acute as Influencing Flows enter and interact with project plans and activities.

Management of this variability requires an ability to plan and execute project activities on a contingent basis, responding to or taking advantage of temporal variability in the execution and completion of the myriad of project activities and tasks. In effect and to the extent possible, project plans must have a degree of temporal flexibility. This flexibility may be achieved through contingent execution, but also through buffers and "distributed float," although the latter is not optimal. The interaction of action conditions and execution timing gives rise to uncertainty of action duration that may have cascading effects on the project execution plan.

Characteristics of contingent execution have typically encompassed strong centralized planning with temporally flexible plans. The multiplicity of stakeholders and arising Influencing Flows are further supportive of more distributed and decentralized planning and execution, albeit with centralized consistency checking. Asynchronous input streams and changing resource availability and execution options are hallmarks of large complex projects.