

Shipyards

New software spreads in South Korean shipyards

By GlobalFalcon

In summer 2010, following the *Deepwater Horizon* tragedy and with Macondo spewing out of control in the Gulf of Mexico, a major operator started a global roll-out of a software product called Zenator. Since then, the software has been successfully deployed on half a dozen of the company's projects, including the mighty Gorgon project for Western Australia and about the same number for Falcon Group's other customers around the world.

Zenator is an innovative, robust verification tool, focused on achieving safe and timely completions during a project's cycle and ultimately, handover to the operations staff. The software is usually implemented during the FEED stage, when it is high on the influence curve and soon becomes the central repository for engineering tag data, enabling users to verify each activity that will ultimately impact safe, timely, handover to operations; from tracking and reporting factory acceptance tests through phased completion of the check sheets that mark: mechanical completion, pre-commissioning,

dynamic commissioning, start-up and performance testing, while also managing all punch list items, management of change, inhibits, isolations and tie-in points.

By default, Zenator is coded with a work flow that matches the structure shown in the diagram that Falcon Group calls a *Completions Pyramid*. This matches the structure the American Petroleum Institute includes in Fig. 1 of its Recommended Practice, 1 FSC (Facilities System Completion, Planning & Execution), published in July 2013.

A wide spread of stakeholders on a typical project deploying Zenator enjoy the clarity, transparency and focus it brings. While Zenator is traditionally "owned" by the commissioning manager, other key stakeholders will be Engineering, Construction, QA, Project Controls and of course, Operations. When used to audit the completion of a project at major milestones, to verify the status on the facility and in the database and check these are the same, Zenator serves as an invaluable confidence-builder. Savvy customers know this and use Zenator to their best advantage,

helping establish trust with regulatory and certifying authorities.

This year and next will see Zenator being deployed on over US\$150 billion of capital projects around the globe, 25 in total, making it the world's leading completions management software. The full project list includes 14 projects for Chevron Corp., 6 for oilfield services company Petrofac, and the rest spread among Falcon Group's customers in Europe, Africa, the US and South America.

The vast majority of projects deploying Zenator since 2011 and through 2015 are in the Asia-Pacific region, concentrated in the three South Korean yards of Daewoo Shipbuilding & Marine Engineering, Hyundai Heavy Industries, and Samsung Heavy Industries. The list includes Gorgon and six other projects, at various stages of construction, all using Zenator to track, control, manage and report, from granular detail to overall progress.

Falcon Group's president and CEO, Alan Mills, believes this is because "... Zenator focuses on the needs of commissioning and the ultimate end-user, operations. We designed and built Zenator to exactly meet the needs of these key stakeholders. Having around 35 years' experience and worked the first 20 or so in engineering, construction, commissioning and operations,

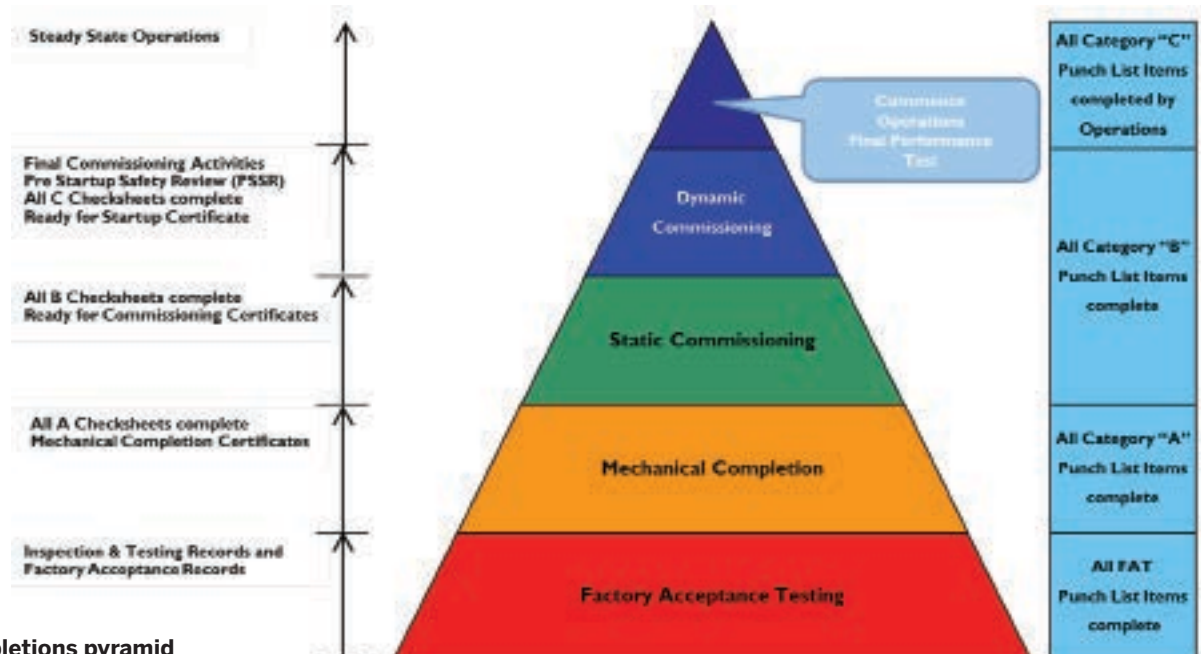


Fig. 1: Completions pyramid

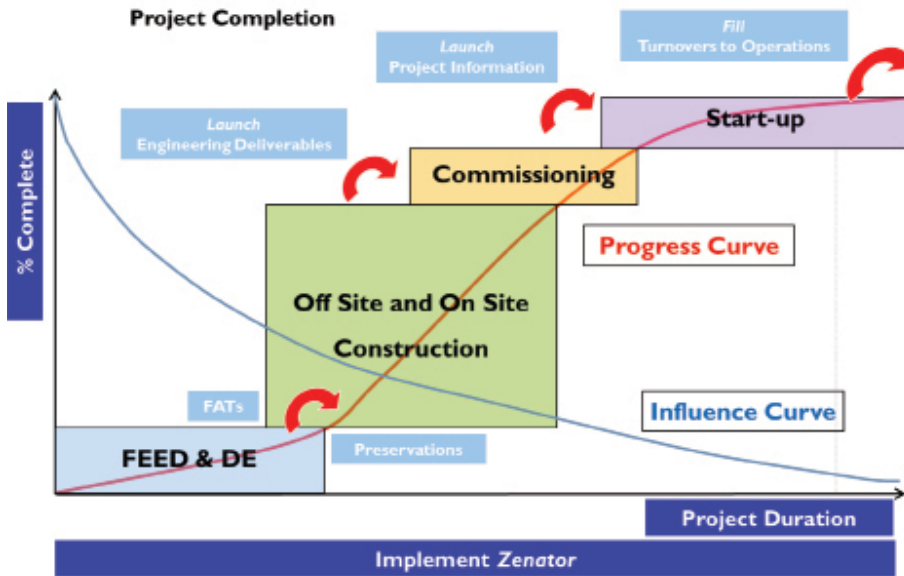


Fig. 2: Software implementation over project life

I knew those key stakeholders were being chronically under-served. Zenator rectifies that situation and restores balance. From the outset, we made Zenator configurable so that clients can easily wrap it around their way of working. Our customers are mainly operators and contractors in oil and gas, but we also have customers involved in shipbuilding, nuclear new build, nuclear decom-

missioning and civil infrastructure projects.”

From the company’s Houston offices, Mills went on to say, “if you focus on the way a project is commissioned and completed, with safe and timely handover to Operations, you improve business performance and the bottom line. In fact, it was assumed this would happen when owners calculated the net present

value, several years earlier when the project was sanctioned. Using Zenator is all about a way of working, whether the project is enormous, like Gorgon, or very small, such as modifications to brown-field facilities. So the argument I sometimes hear that a project is too small to use Zenator is not valid. It’s true, on giga projects like Gorgon, Zenator is populated with over a million records and users rely on it entirely to do their work. But we know from the experiences of our corporate customers, that used on much smaller projects, it brings consistency to the way company completes its projects and provides essential development of the company’s talent. I am very proud that our software is being used to develop and train the next generation of commissioning managers.”

Falcon Group are not complacent about the success Zenator is receiving, Mills added, “Our work never stops. There is an exciting development program that will bring further innovation to our customers. We don’t dictate how a customer should work, instead we set out to provide new ways of working. There is some streamlining and some radical innovation in the pipeline for our customers.” **AOG**