

A SOLID LIFTING OF THE SPIRITS

MIDDLE Eastern expertise and Western IT technology proved a powerful combination on an international award-winning project that was the first of its kind for a shipyard in the Arabian Gulf.



CONVERTING the Abouzar 1200 heavy lift crane ship into a deep water pipe lay barge for the offshore oil industry was a large and complex procedure. Not only was it the first such project for Arab Shipbuilding and Repair Yard (ASRY) in Bahrain, it was a first for the Middle East.

ASRY is owned by the seven Organisation of Arab Petroleum Export Countries (OAPEC) – Bahrain, Kuwait, Qatar, Saudi Arabia, the United Arab Emirates, Iraq and Libya. It was the first major repair facility in the Arabian Gulf for vessels serving the region's offshore oil industry and one of few yards in the world specifically designed to handle very large vessels.

It has become one of the most active pan-Arab cooperation organisations since it began operations in 1977 and has grown in size and international reputation. In 1992, two floating docks able to accommodate vessels up to 120,000dwt were added to the existing 500,000dwt dock to cope with increasing demand. Its main customers are

from Arab nations, Scandinavia, India, Greece, Brazil and the Far East

The contract from the Iranian Offshore Engineering and Construction Company (IOEC) for the multi-million dollar conversion of the Abouzar 1200 was won against strong competition and set new challenges for the yard and for project manager Magdy Sharkawy and his 24-strong team.

As the first conversion project of its type, it called for a particularly detailed strategy with close attention to planning and performance monitoring to meet all the deliverables. Magdy, a marine engineer, believed that a project management IT solution that underpinned and helped to control the processes from budgeting through to commissioning was essential for a smooth execution.

Using P3 from Primavera to integrate all the processes, the project was broken down into four key stages – converting the hull, installation of the pipe laying equipment, installing new generating sets and miscellaneous repairs.

Core processes were defined and developed right from the start. The team studied conversion specifications, identified and defined the major activities required, identified milestones and prepared the various networks. The major project deliverables were then broken down into more manageable components.

A resource and cost-loaded budgetary schedule was prepared, based on tender and estimate figures. Manpower was planned by requirement by trade and specific activities were defined, along with the time needed to





BIG SHIPS: ASRY is one of few yards in the world designed to handle very large vessels (above). Work to convert the Abouzar 1200 from a heavy lift crane ship into a deep water pipe laying barge (below, left and right) was a first for the Middle East.

complete them.

Milestones were set, with quality assurance checkpoints along the way. Cost estimates for each phase and activity were allocated and the software system was used to identify risk, assess the possible outcomes and the response required.

Project performance was measured daily and the construction schedule was updated daily, weekly and monthly to identify any cost, schedule or critical path variance from the plan so that timely and appropriate recovery action could be taken. A claim

schedule was generated from the construction schedule to demonstrate the impact of slippage and was used successfully to support claims and time extensions when required.

"One of the main challenges was to procure the specialised equipment and to assure its availability in order to achieve the milestones," said Magdy. "The required equipment was not available off-the-shelf. To accommodate the different delivery dates from various suppliers with slippage on the original dates, a catch-up-plan had to be prepared twice to achieve the challenging delivery date to allow the owners to start their pipe laying project to the satisfaction of their customer."

Good project management concepts, making the best use of software and using the alerts and reports generated by it were key to success, said Magdy. The Abouzar 1200 project also taught him and his team the importance of adhering to the project plan and closely monitoring the milestones.

When the necessary commissioning and

trials were completed at the end of the project, ASRY knew it had a success on its hands. In fact, it was such an achievement that the project won the Conversion of the Year title in the International Ship Repair News Awards, presented for excellence, innovation and outstanding work.

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- Primavera Project Planner (P3) is a single-project scheduling and planning tool from Primavera Systems. Primavera P3e/c for Construction manages multiple projects in one system.
- For further information visit www.primavera.com

