

Learn more
about our Special
Projects Group at
OTC Booth 5563

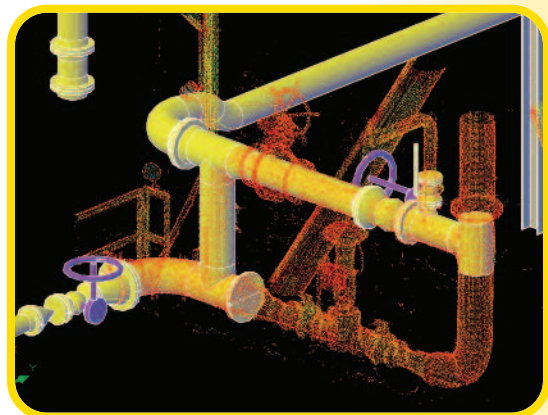
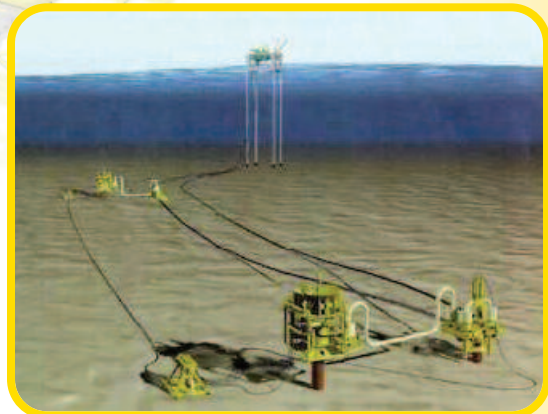
Special Projects Get Special Attention

When Mustang started operations in 1987, its playbook was designed to offer clients a unique approach to project planning and execution. Descriptors such as *'People Oriented...Project Driven®'*, *'energy and ingenuity'* and a host of others became the Mustang mantra, providing key differentiators that were unique and described a culture and project approach that continues today.

As Mustang's reputation grew, so did the size and complexity of its projects. The industry's move toward deeper water in the Gulf of Mexico and elsewhere necessitated a more formal project structure to successfully interface with a multitude of participants. Mustang adapted to this larger scope and, with its topsides expertise, quickly became known in the industry as the *Deepwater Center of Excellence®*.

As the industry shifted, Mustang desired to maintain its roots and serve clients of all sizes and needs, Mustang created the Special Projects Group (SPG) in 1996, designed to emulate the original Mustang project philosophy. Its intent was to offer industry clients a means of handling multiple non-task force projects of varying sizes simultaneously, providing only the services required, offering fast-track solutions while preserving budgets. The approach was ideally suited for brownfield projects that involved reducing bottlenecks, adding capacity, upgrading systems, optimizing processes and updating regulatory and safety compliance. No job was too small or difficult to handle. Specific project types included subsea tie-backs, compressor and pump stations, metering and SCADA systems, production facility upgrades, and revamps of all types.

Today, SPG contains a cadre of approximately 200 experienced industry veterans of virtually every engineering and design discipline required to undertake a project from start to finish. These include mechanical, structural, process, electrical, instrument and piping. The group size purposely remains fairly constant, with a steady work load regardless of industry activity. A tribute to its success, and to the Mustang culture of being people oriented, is that many of its designers are long time Mustangers who have been with the group since it was formed.



Client relationships, too, have been continual. Emphasizing the concept of being ‘engineers down the hall’, group members have forged strong ties with clients, who know they can rely on SPG to provide valuable assistance when needed and to be ready for quick turnaround projects. In many instances, the group is assigned to provide management of change functions, updating P&IDs and keeping the client facilities current with governmental and industry regulatory changes.

It takes a unique individual to thrive in the group. Among the traits is the ability to multi-task, remain flexible, and, in some cases, help provide order. Often the projects are not well defined and rely heavily on the ingenuity of the designer to assure project success. The varied experience levels in the group allow younger engineers the opportunity to grow quickly with hands-on responsibility under the tutelage of industry leaders in their specific discipline. The group began with a Gulf of Mexico geographic concentration and has grown into projects which spread to all corners of the world in support of Mustang’s increasing international presence.



West Africa

SPG, with the backing of Mustang’s Shared Engineering Department and business unit project design groups, has a wealth of in-house resources on which to draw. SPG can quickly borrow engineers when needed and provides ‘loaners’ to other groups, if necessary. An example of the latter was on a world-class project managed by Mustang’s Onshore Facilities Group in West Africa, where facilities and piping design were provided almost entirely from the Special Projects Group. This adds to the group’s flexibility.

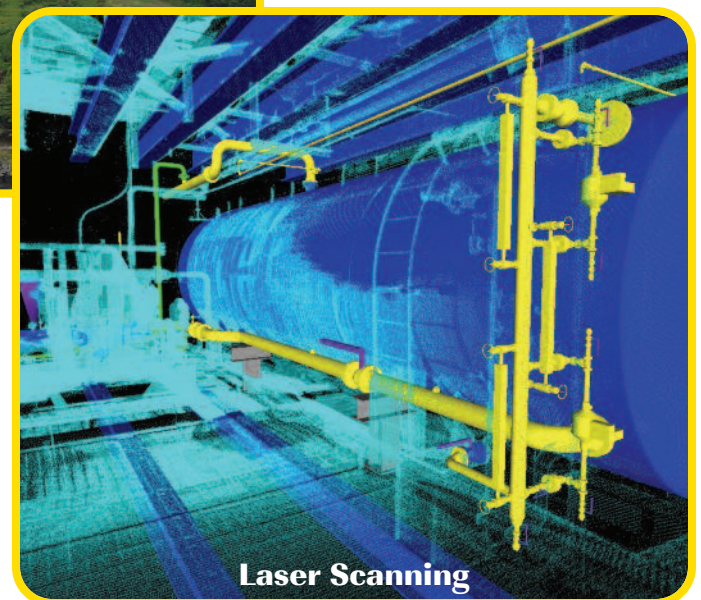
The same is true for design software. For smaller, lower budget projects, the group can utilize cost effective 3D CAD capabilities, but it also has the in-house knowledge and licenses to use PDMS and other cutting-edge modeling programs when needed. SPG has incorporated the latest technologies to offer clients ways to cut costs and improve project safety. An example of this is laser scanning,

implemented by a specialized SPG team on an increasing number of projects.

The group has executed thousands of projects of all different types and levels of complexity. Clients number in the hundreds. Two recent projects illustrate how the Special Projects Group can work and how effective it can be to both onshore and offshore clients.

In the first instance, the group was contacted by a company operating several natural gas fields on the U.S. Gulf of Mexico shelf. In one of the fields offshore Louisiana, the company inherited a 20-plus year-old, eight pile fixed platform operating in approximately 200 feet of water. The client wanted to increase production from the facility and bring it up to current standards, but had no background information on the current status of the platform. There were no P&IDs available from the major operator that had previously managed the facility.

The first order of business was to accompany the client to the site for an assessment of the facility and an understanding of the client’s objectives. SPG then sent a two-person laser scanning team to the site, where they performed more than 50 scans of the facility’s production and cellar decks in a single two-day trip, including multiple scope changes. The scanning saved the client both time and costs, as manual surveying would have

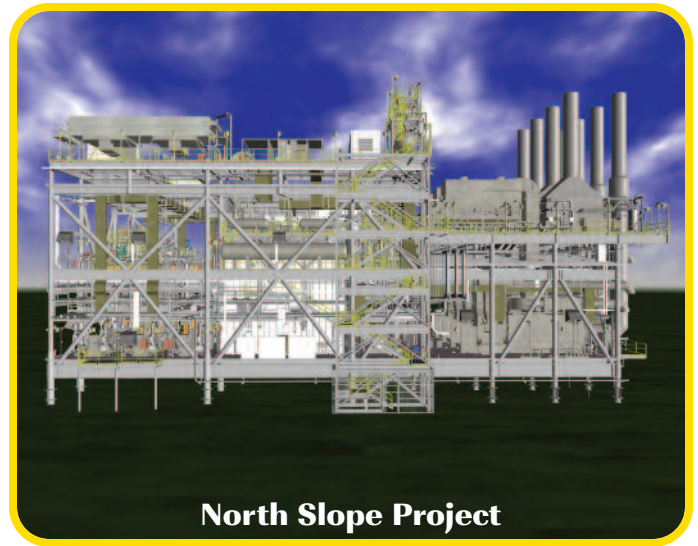


Laser Scanning

required multiple trips and approximately 13 man-weeks to accomplish. The scan results, accurate to 3 mm (vs. 1–3 inches with a manual survey), were then back-designed in 3D CAD software to create new P&IDs from which to develop a facilities

layout and cost estimate. In a client meeting, the design team was able to project the laser scans overlaid with the 3D drawings to demonstrate precisely how the expansion would be undertaken. The project took only four months to complete the detailed design phase allowing the revamp to go forward. Team members have been asked to provide construction management guidance and startup assistance as a further assurance that the project will be completed on time and within budget.

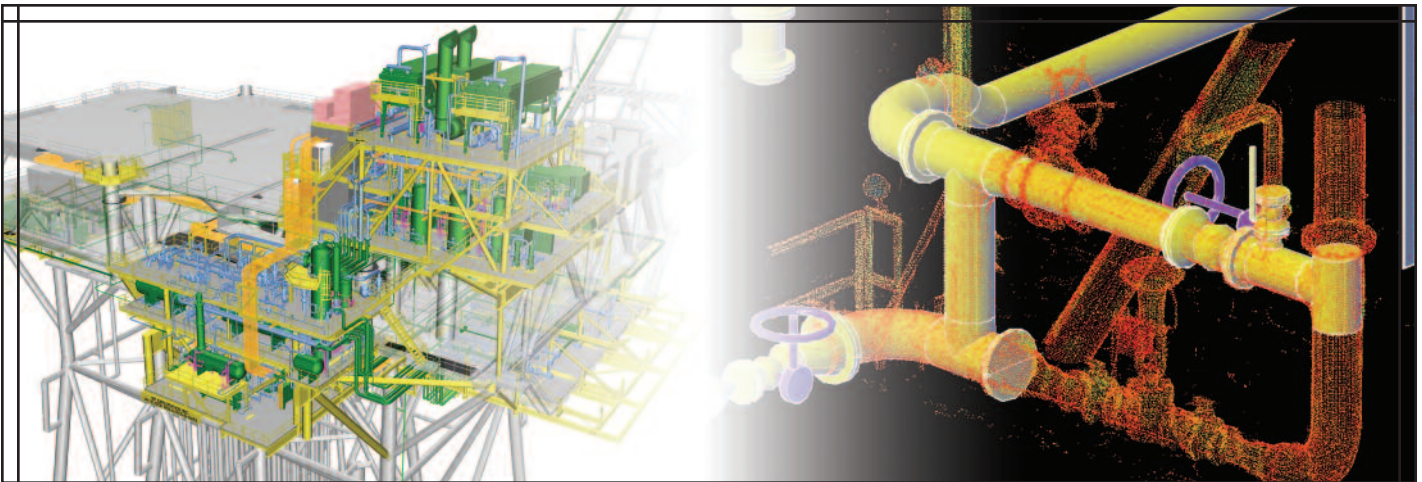
A second illustrative project was onshore Alaska on the North Slope inside the Arctic Circle. The group worked closely on the project in concert with Mustang's Upstream Project Management and Shared Engineering Department, which provided the project manager and some key personnel. Mustang was contracted to design two new modules for a production facility to separate and treat 40,000 BPD oil from an adjacent shallow water field for transport to a link to the Trans-Alaska Pipeline System. The project had an unusually fast-track schedule because of the extreme weather conditions that created only a narrow window for transport of long-lead time equipment and modules to the site. The group took the project from concept through detailed design in approximately 12 months, creating almost 3000 isometric drawings for the new power/utility and process modules. The SPG designers



North Slope Project

worked closely with the client to design the facility for North Slope conditions, with such accoutrements as bear cages on ladder access and insulated walls throughout.

Mustang's Special Projects Group is truly special. With close teamwork, a wealth of experience, ingenuity and a focus on providing value, it has carried on the Mustang tradition of making heroes of its clients, partners, vendors and Mustangers.



Paying Special Attention to Special Projects **Dedicated to Cost-Sensitive Brownfield Assignments – Onshore and Offshore**

Mustang's Special Projects Group benefits include:

- No project too small
- Innovative technologies
- Experience in all disciplines
- Project team continuity

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