

SPAR Scuttlebutt

June 2008

CSC Purchases SPAR Cost Models

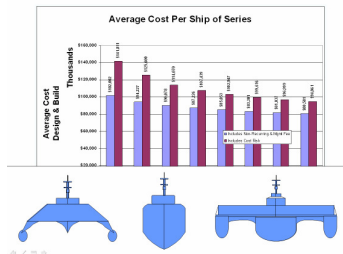
Computer Sciences Corporation purchased SPAR's big three costs models for the mono-hull, the catamaran and for the trimaran.

These cost models produce cost estimates for concept and preliminary ship designs. They quickly assess costs and risk for various design/mission trade-off alternatives, including options for different build strategies. The models provide a range of structural and powering selections and other equipment to predict weights, costs and ship performance characteristics.

The models also substitute default ship design parameters developed from statistical data until actual design data can be determined. In this way, the cost estimates can follow the design evolution.

The models automatically adjust costs for equipment and material for future year estimates using commodity-driven escalation tables obtained from the U.S. Government and industry-recognized commercial and foreign sources. Other features adjust costs for expected level of shipbuilder productivity, manufacturing complexity and impact of costs and schedules from the projected manpower requirements generated by the models.

The models generate cost risk assessments depending on assessments of anticipated performance of the engineering, of the shipbuilder, and of the planned general program schedules.



CSC provides consulting, systems integration, and outsourcing services that deliver innovative results-driven solutions to government and commercial clients around the world.

Independent Cost Estimates for the USCG National Security Cutter

SPAR was awarded a contract by BMT Designers and Planners to develop a series of cost and cost risk estimates to complete the USCG Deepwater program building the National Security Cutter (NSC). These estimates assessed relative cost and risk for different shipbuilder scenarios as well as a number of other possible strategies expected to improve costs and schedules for the remaining ships planned for the program.



This contract compliments SPAR's earlier contract with BMT Designers and Planners where SPAR produce independent cost and risk estimates for the USCG Deepwater Fast Response Cutter, FRC-B. Those estimates also investigated different scenarios of designs, materials and shipbuilders.

BMT Designers & Planners provides marine technical and managerial consultancy services of ship design and engineering, advanced technology, environmental, and safety to a variety of government agencies and commercial clients.

Fraser Shipyards Purchases ESTI-MATE and Repair Cost Libraries

Fraser Shipyard, Inc. of Superior, Wisconsin purchased SPAR's PERCEPTION® ESTI-MATE™ system and SPAR's Ship Repair Cost Libraries. The libraries include standard costs for a wide variety of ship repair activities and related shipyard services.

Fraser's use of ESTI-MATE is expected not only to improve the quality of estimates, but also speed up their generation in response to ship owner requests for bids. The ESTI-MATE database serves as a central repository for all costs and all estimates that are easily and directly retrievable by the shipyard.

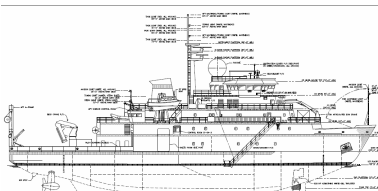
"Over 35 Years of Providing Planning & Production Management Systems to Shipyards"



Fraser Shipyards offers full shipyard services and features building and repair berths, a joiner shop and mold loft, machine and fabricating shops, warehouse facilities, two fully working dry docks, lay-up and fit-out berths. Engineering services are provided by Northern Engineering Company (NECO), a subsidiary, conveniently located near Fraser Shipyards in Superior, Wisconsin.

Independent Cost Estimates for the Alaskan Research Vessel

SPAR has been awarded a contract by Glosten Associates, Inc. of Seattle, Washington to produce cost and risk estimates for updated designs for the Alaska Research Vessel (ARRV) planned to be built for the University of Alaska.



Glosten Associates provides marine design, engineering and consulting services to members of the Marine Community

Korean National Defense University uses SPAR Consulting Services

The Korean National Defense University purchased various consulting services from SPAR to

help in their developing program to build landing ship docking vessels. These services included information related to implementing earned value management (EVM) policies and procedures for the program.

EVM is designed to better monitor costs and schedules and to help maintain an acquisition program stay on track and its planned objectives.

KNDU provides education on national security policies, national defense management, and joint/combined operations for the Republic of South Korea.

SENESCO Expands Its Use of SPAR's PERCEPTION System

SENESCO Marine of Quonset Point, Rhode Island, has expanded its use of SPAR's *PERCEPTION* system to better plan and manage its material and material costs. *PERCEPTION* is a shipyard management system that coordinates most shipyard business processes: cost estimating; planning and scheduling; labor work orders, time charge control, and progress/performance reporting; and purchasing, material control, and cost management reporting.

At SENESCO, *PERCEPTION* is linked to the shipyard's financial and accounting system, Microsoft's *Great Plains* (payroll, accounts payable and receivable and general ledger).

The shipyard has expressed a special appreciation for *PERCEPTION*'s labor performance and automated contract progress reporting and for the system's flexible procedures for cutting purchase orders that are quicker

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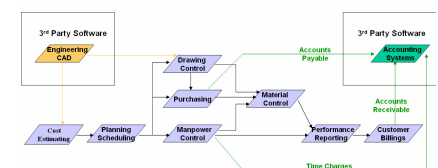
and much easier to do than using purchasing functions available in *Great Plains*.

SENESCO, located on Narragansett Bay in Rhode Island, builds tugs and double-hulled, ocean-going barges for use in U.S. waters.

What is an Earned Value Management System?

There is general agreement among shipbuilders that intelligent control over basic resources (engineering, manpower, material, facilities and time) will result in improved ship construction costs.

The task of estimating costs, planning and scheduling men and materials and then controlling these resources to maximize production output, while minimizing costs, can be a very difficult job. These efforts become more complex with the increase in the size of the shipyard organization and the scope of the yard operations. Modern-day shipbuilding poses no mean management challenge.



PERCEPTION helps manage the full flow of shipyard information

PERCEPTION versus Financial Accounting Systems

Financial accounting systems focus of money transactions of the shipyard: payroll, accounts payable, accounts receivables, and general ledger. Accounting systems typically focus on managing money on an accounting

period basis with a lesser focus on managing money on a project or contract basis. Few accounting systems are structured in ways to plan and manage production and measure its levels of productivity throughout the facility.

Accounting systems typically do not address the business requirements of running shipyard production and its real-time need to integrate estimating, planning, scheduling, project management, performance progress reporting and cost/schedule forecasting (especially necessary for government contracts). These are the functions that *PERCEPTION* provides.

PERCEPTION provides visibility of progress, costs and schedules at various levels of detail and for different points of view and areas of interest. These are capabilities that usually are limited in financial and accounting systems. Shipyard managers need this capability to review and analyze not only where they have been, but perhaps more importantly, where they are going. The *PERCEPTION*-generated forecasts and trends of costs and schedules are very helpful in this regard.

Each shipyard's accounting department has its own preference for running their accounting activities. *PERCEPTION* has been designed to interface easily with accounting functions. *PERCEPTION* does overlap with some of these functions by processing time charge transactions, purchase orders, receipts and inventory control, vendor invoice cross-checking and customer billings (real-time generation). Some of these transactions can be performed by the accounting systems, so there is flexibility in

how they are interfaced with *PERCEPTION*.

PERCEPTION also interfaces easily with a number of popular CAD systems for downloading bills of material for purchasing and production material control.

PERCEPTION is a supplemental system to financial and accounting functions.

PERCEPTION versus Generic Systems

There are any numbers of generic financial and accounting systems on the market that attempt to provide planning and project management capabilities. They advertise their ability to be modifiable to suit any specific company requirements. However, the cost to do so can be very expensive and often cannot be done very quickly. What often results when the generic system is modified to meet the needs of shipyard production is a system that does not satisfy all of these requirements and those that it does are often cumbersome to use at best.

The shipyard business is not at all like running an assembly line manufacturer, nor is it exactly like a typical build-to-order discrete manufacturer. The shipyard must closely manage many more different resources. Keeping all of them coordinated and on track can be a daunting effort. Every day there are changes and problems to resolve or else the whole scheme of things falls apart.

PERCEPTION is not so generic that it fits any other industry. *PERCEPTION* is organized around shipyards and their specific ways of doing business. Implementing the *PERCEPTION* system within a

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shipyard is not a long, expensive process, so large-scale efforts to adjust a generic system like Oracle, Baan or SAP to a shipyard's production management requirements is not necessary. The system uses typical shipyard vernacular for its input and output media. It produces information most shipyards require to manage their production processes, such as reporting labor hour per ton of hull block, per square area of deck, per linear measure of welding, etc.

Shipyards using the system often express an appreciation for how easy the system is to use. Cutting billing invoices, for example, has been said to be much easier to do with *PERCEPTION* than with the functions available with larger accounting systems. *PERCEPTION* provides many user-friendly features such as automatic filling in of information, etc., expediting authorizations, quick and flexible access to a wide range of important shipyard planning and performance information and many options for collecting data and formatting reports.

SPAR Associates, Inc.

SPAR has been providing shipyard production planning and management control software since 1972. In addition to its software products, SPAR offers a variety of support services, including custom software design and development; training and software maintenance services; independent cost estimating; supplemental shipyard planning and scheduling services; and management consulting to various interests in the marine industries.

We are always available to address whatever questions that you might have. Your success is ours.

SPAR Publications

SPAR has the following publications available to help shipyards plan and manage their operations:

- **“Planning New Construction & Major Ship Conversion”**
(US \$50.00) (*INT.,US\$58.00)
- **“Cost Savings Using Modular Construction Methods & Other Common Sense”**
(US \$50.00) (*INT.,US\$58.00)
- **“Guide for Cataloging Cost Estimating CERs”**

- (US \$50.00) (*INT.,US\$58.00)
- **“Guide for Cost Estimating New Construction”**
(US \$40.00) (*INT.,US\$46.00)
- **“Guide for Shipyard Material Control”**
(US \$75.00) (*INT.,US\$86.00)
- **“Implementation of a Shipbuilder’s Earned Value Management System (EVMS)”**
(US \$75.00) (*INT.,US\$86.00)
- **“Comparing Methods of Measuring Progress, Earned Values & Estimates at Completion (EAC)”** *FREE*

Publications are available in hard copy or pdf file via electronic mail.
*For hard copies mailed outside the USA, please see the (INT., US\$) pricing.

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