

Computerized Steel Erection Schedules

by Kenneth E. Kline

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The need for accurate production forecasts is of increasing importance throughout industry because of tighter competition and the increased use of labor and material. This is particularly true of shipbuilding.

At Sun Ship, a flexible building capacity has been created that permits us to construct different types of vessels simultaneously and on very tight schedules, resulting in assignment of priorities. Any priority change, however, plays havoc with the forecasts for labor, launch, and delivery of the various ships, as well as the schedules for engineering, material, and construction. Before July 1970, our significant change in a building program would have required about 100 man-hours to set up a compatible steel construction schedule, and then with a great deal of work because it was impossible for the men to apply logic to all points on the steel erection curves. Recognizing that many production control systems in the shipbuilding industry did not handle the problem of production because of their lack of flexibility and dynamic features, a computer program has been developed to predict launch, launch, and delivery up to three years within the constraints established for the type of ship, shipyard facilities, voyage preparation periods, time required to dry, total time to be erected at launch, maximum and minimum limits on rate of loss on various vessels, and the priorities of vessels relative to delivery dates.

An established law, the computer program operates on a GEI-405 computing system at Sun Ship Company; the computer provides calculations of steel erection schedules and generates data to plot the schedules on a Gerdar plotter located in Research and Development at Sun Ship. The entire process of preparing input data, transmitting it through regular telephone lines using a teletype terminal located at their site, making calculations and generating a plot of the entire steel erection schedule takes approximately 50 minutes. Query a computer when compared with the 50 hours previously required.

The program has thus far resulted in providing management with a dynamic production schedule tool that allows them to value a look at an optimized steel erection schedule, and consequently decide on launch, launch and delivery dates in a matter of a few minutes. These 50 hours saved are now better applied to keeping the plant fully actively employed for many more hours.

John G. Pew, Sr. Golf Tournament Swedesboro Golf Club

October 7, 1972



Left to right: K. Schellen, J. Walton, and B. Higgins. Other winners group, including K. Schellen, J. Walton, B. Higgins, and B. Higgins.



A. Schellen, who proved to be an eligible candidate for the winner's prize.



Left to right: K. Schellen, J. Walton, and B. Higgins.



Left to right: K. Schellen, J. Walton, B. Higgins, and B. Higgins.



Thinking the trophy was theirs, left to right: A. Schellen, J. Walton, B. Higgins, and B. Higgins.



J. Schellen, left, with J. Walton, the trophy winner.

WINNERS 1972

EL-600-A*

Low Net - Jack Nelson
Low Gross - Larry Nelson

EL-600-B*

Low Net - Dan McDonald
Low Gross - Ted Chasinski

EL-600-C*

Low Net - John Donahy
Low Gross - Walt Weyers Jr.

SUN SHIP CALLBOAT

Low Net - Dan Asquith
Low Gross - Ed Fenton

CORSE

Low Net - C. King
Low Gross - Gary Nelson

BLACKHOLE, S. - 10

BRADLEY, S. - 10

BROWN, S. - 10

BURLEY, S. - 10

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Sun Ship's Entry in the Suburban Softball League



Thinking the trophy was theirs, left to right: A. Schellen, J. Walton, B. Higgins, and B. Higgins.



Thinking the trophy was theirs, left to right: A. Schellen, J. Walton, B. Higgins, and B. Higgins.