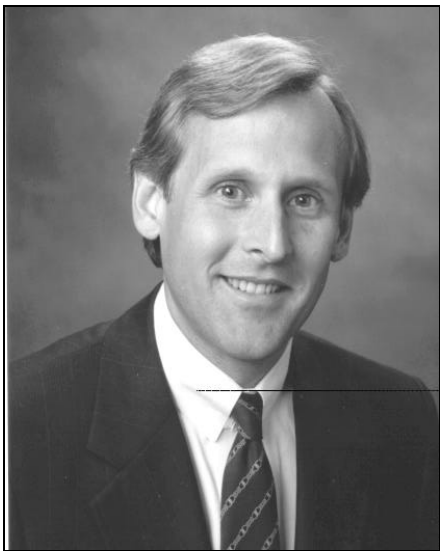
Home Runs in Management Science



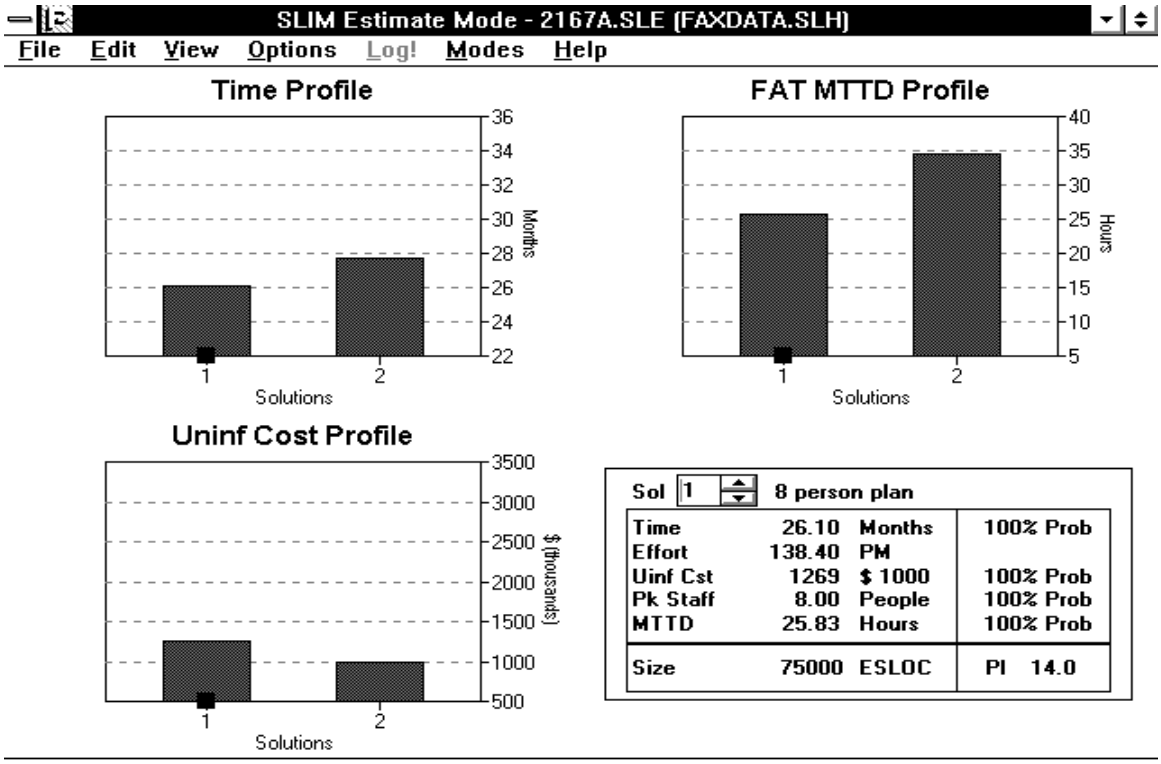
"Home Runs in Management Science." That's the title of an article that we came across in the March 22 issue of Computer World by Mitch Betts. He points out that in the past decade operation researsch and management science projects have made very significant bottom line contributions to major corporate enterprises.

Here is an example: "1986: Weyerhaeuser Company developed an interactive computer model that helps lumberjacks cut each log to maximize profits and minimize waste. The model considers such variables as the log's length, diameter, curvature, taper, and knots. Benefit: the company increased profits by $100 million."

I thought about this for a little while and realized that the same magnitude of bottom line benefits are available to our SLIM Users today. Certainly in software project estimating we are concerned with maximizing profits and minimizing waste. Our variables are size of product, application complexity, tools leverage, people skills and management skills.

Here is a software example: It is estimated that a $6 billion corporation spents about 5% of their gross revenues on software development. That's $300 million. At $100,000 /person year that would amount to approximately 3,000 people. Our statistics show that an average project would employ an average staff of 8 people and would be about 75,000 SLOC. At any point in time there could be as many as 375 projects in various stages of development.

If this corporation were to use SLIM in their planning on each of there 375 projects and simply reduce the average staff by 2 people thereby modestly extending the schedule, they would realize a total cost saving of $260,000 (about a quarter of a million dollars) per project . The Figure below shows the cost, schedule, reliability trade-off. Solution 1 (on the left) shows the solution for the 8 person project. The 6 person plan is on the right. A table summarizing each solution is shown below the figure.



Comparative Solutions for 8 person plan vs. 6 person plan at PI 14

Management Number	8 Person Plan	6 Person Plan
Schedule (Mos.)	26.1	27.7
Effort (PM)	138.4	110.1
Cost ($000)	1269	1009
Reliability, MTTD (Hours)	26	34

So what's it cost? You don't get something for nothing! It costs a month and a half longer -- 6 weeks. But each system is better -- runs 34 hours without defect vs. 26 hours. Given that that six weeks is often within the margin of uncertainty on reporting accuracy, and the management reaction threshold, it seems like a very good bargain.

When we add it all up the bottom line result is: Savings of $101 million on these systems -- roughly $50 million per year. That doesn't even take into account that you have the people saved (2 per project) on all these projects now available to hack away at the development backlog or pressing new work.

Let's get SLIM to help us hit a few more home runs.