Defense Manufacturer Improves Capability to Meet Deadlines and Mitigate Risk for Its Customers

Large Government, Military, Commercial Contractor

Success Story

Manufacturing/ Government

Enterprise Portfolio Simulator

SITUATION

A leading provider of mission-critical advanced technologies is focused on meeting the needs of military, government and commercial customers around the world in the command, control, communications, computers, intelligence, surveillance and reconnaissance markets. Ingenuity is one of their strongest characteristics, so it's no surprise their analysis team determined ProModel's Enterprise Portfolio Simulator(EPS) to be a good tool to add to their arsenal.

They know conditions change rapidly and that's why simulation technology is so important. They count on their analysts to predict production requirements for their high-mix product lines years into the future. The analysts count on EPS simulations to provide the answers they need to ramp up to full-rate production volumes as quickly as they can.

OBJECTIVES

An analysis tool that helps them answer a variety of predictive and prescriptive questions:

- Can they meet the program's needs for the shipset of parts?
- Which resources, how many, and when do they need to hire and train to meet the program requirements?
- Based on operational risk, which processes need to be more robust?
- In their high-mix production, what are the bottleneck and the true utilization for each area?

RESULTS

They now have a modeling tool that draws data directly from their ERP system. EPS interprets it into complex processes and dynamically applies learning-curve-adapted touch times for resources. With this information, they can predict the time, skills, tooling, equipment and floor space required to complete the specific parts, shipsets, and programs. A division can then plan for an entire portfolio of programs.

SOLUTION

The EPS decision platform is designed to be adaptable and scalable. A data warehouse extracts data from the current Oracle-based ERP and passes it to EPS. The data warehouse is independent of the ERP system to facilitate future ERP migrations.

For example, they may build shipsets of 80 different parts. EPS adapts the process time to the learning curve at the part or shipset-level. In this way, they know part throughput as well as shipset completion dates. Below is an example of a resource template that defines a specific learning curve for all tasks containing project/part L1 in the description. A unique learning curve can be applied to each individual part as required.
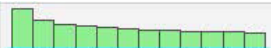
Resourcing Templates Grid

| 26 | | Learning Curve | Monthly | | 20, 14, 12.3, 11.4, 10.8, 10.3, 9.8, 9.5, 9.3, 9, 8.8, 8.6 |

Learning Curve Contours Grid

EPS is especially suited to address the unique planning challenges faced in high-product-mix and contract manufacturing. This is just one example of how EPS can accurately simulate the nature of your task and resources activities to provide a reliable picture of the future of your projects and portfolios.