

## Transforming Project Estimations at General Dynamics Electronic Systems



## The Challenge

General Dynamics Electronic Systems, based in Mountainview, CA, faced significant challenges in accurately estimating and controlling software development costs. Without a standardized process, the company struggled with inconsistent and unreliable estimates, hindering their ability to deliver projects on time and within budget.

## **The Solution**

In the 1980s, the company began using software metrics to improve cost estimations. By harnessing historical financial and program data, General Dynamics developed a more accurate and consistent estimation process. This included:

- Centralized Data Collection: Implementing a formal process to collect and analyze historical project data.
- Adoption of Software Metrics: Utilizing software metrics to produce accurate cost estimates and control costs throughout the project lifecycle.
- Integration of Advanced Tools: Transitioning from spreadsheets to advanced cost estimation tools like SEER-SEM™ from Galorath Incorporated, which provides detailed sensitivity analysis and custom parameters.

## The Result

The introduction of software metrics and advanced tools led to significant improvements in the company's project estimation capabilities:

20%	of estimation accuracy improved, reducing the risk of budget overruns.
25%	increase in resource allocation efficiency, ensuring optimal use of financial and human resources
30%	improvement in cost and effort estimates by successfully integrating Agile methodologies.

These improvements allowed General Dynamics Electronic Systems to deliver high-quality systems to their customers, on time and on budget, setting a new standard for project estimation within the industry.