GALORATH

Improving Estimation Accuracy at the SSA with SEER-SEM

The Social Security Administration (SSA) is the world's largest insurance organization, with 65,000 employees and over 200 million potential or existing clients. It protects more than 145 million workers and pays benefits to 44 million people (about twice the population of New York). Managing such a vast enterprise requires complex systems and specialized software, primarily developed within the SSA's Office of Systems, where about half of the 4,000 employees work in software development.

Dennis O'Mailey, leader of SSA's Software Measurement team, oversees the use and development of approximately 100 programs, with another 30 to 40 in development at any time. Most of the existing systems are written in Cobol, while new developments are in a client/server environment. The Software Measurement team is tasked with estimating the size, effort, and schedule of projects, tracking progress, and assisting the SSA in achieving CMM (Capability Maturity Model) Level 2 and 3 compliance.

The SSA needed a precise software estimating tool due to significant discrepancies in project estimates, which often varied based on the project manager's experience. In response, the SSA's Office of Systems adopted SEER-SEM™ from Galorath Incorporated. SEER-SEM is a parametric tool that predicts, measures, and analyzes the resources, staffing, schedules, and costs of software projects.

Currently, the SSA uses SEER-SEM on numerous projects and plans to expand its use to all software development and maintenance tasks. The tool is particularly useful for "what if" analyses, allowing project parameters to be adjusted and tested quickly. As projects progress, estimates can be refined continuously, improving accuracy.

O'Mailey and George Freed, a senior metrics analyst, find SEER-SEM's accuracy promising. Project managers have noted that SEER-SEM estimates are generally on target. The Software Measurement team collaborates with the SSA's Software Process Improvement team to accelerate CMM compliance, which involves following a documented procedure for estimating project effort and cost—a process now standardized with SEER-SEM.

Freed emphasizes the tool's capability to be calibrated to SSA's experience, enhancing its accuracy. O'Mailey highlights the significant cost savings derived from effective project management grounded in good estimates. The true benefit of SEER-SEM lies in its ability to help project managers measure effort and schedule early in the project, ensuring resources are allocated efficiently throughout the project's lifecycle.