Agile Program Planning | TTO

MITRE’s Schedule Exchange Engine (SEE) bi-directionally integrates program plans, built using Business Process Modeling Notation (BPMN), with corresponding program schedules. SEE software automatically maintains a highly cohesive, loosely coupled relationship between the visual BPMN program workflow models and the related program Integrated Master Schedule (IMS).

SEE integration enables agility in program planning and program outcomes optimization throughout the program execution using BPMN queuing and stochastic simulation with inexpensive commercial off-the-shelf (COTS) tools. MITRE’s patent pending SEE technology automates the synthesis of time based scheduling using a time and resource-loaded workflow model.

Applications

Several U.S. Department of Defense (DoD) and U.S. Department of Homeland Security (DHS) MITRE sponsors are early SEE adopters for complex programs with the following attributes:

- Multiyear program period of performance
- Includes several interrelated projects with critical dependencies
- High degree of uncertainty throughout the program life cycle
- Constantly evolving internal and external program constraints

Benefits

SEE enables efficient and effective management of complex program and/or portfolios via:

- Rapid development of initial plans through the use of standard acquisition workflow templates
- Improved high-level representation and visualization of program dependencies
- Program plan probabilistic optimization for schedule, cost, resource, quality, and other inter-related constraints
- Continued use of Critical Path Method (CPM) scheduling tools for monitoring and controlling program execution performance via common performance analysis metrics and techniques such as earned value and variance analysis
- Optimized re-planning that accounts for validated schedule progress information.
The MITRE Corporation is a not-for-profit organization chartered to work in the public interest. We apply our skills in systems engineering, research and development, and information technology to help the government address issues of critical national importance.

Additional Information

Patent application titled “Synthesis of Schedule Representation from a process Model” was filed with the U.S. Patent and Trademark Office in December 2012.

Contact: The MITRE Corporation Technology Transfer Office • 7515 Colshire Drive • McLean, VA 22102–7539 • Phone: 703–983–6053 • Email: techtransfer@mitre.org www.mitre.org/research/technology-transfer