

# SEER® FOR SYSTEMS ENGINEERING

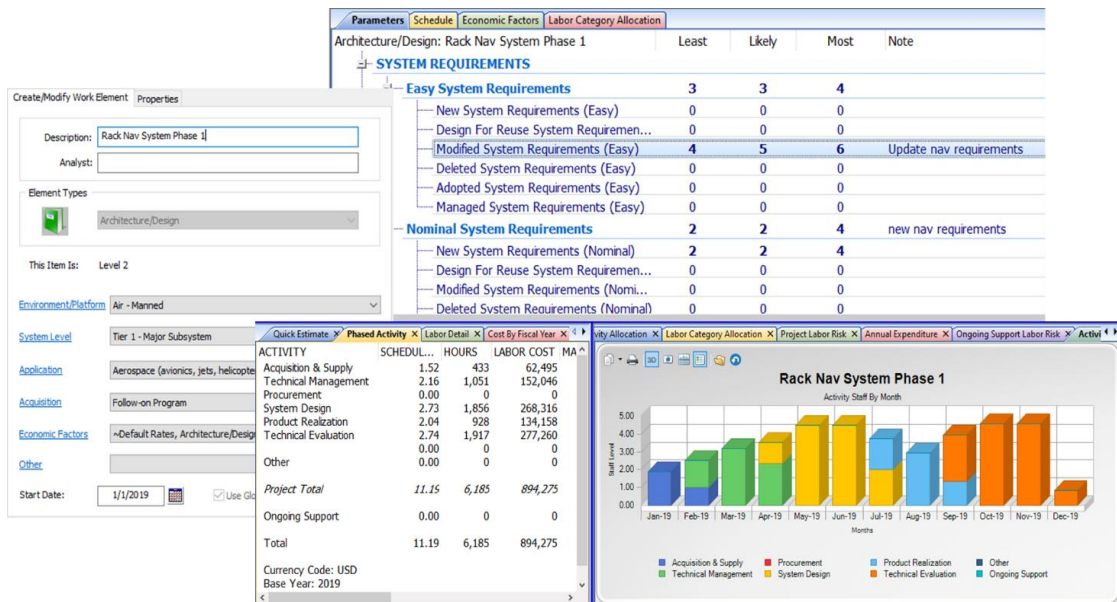


G A L O R A T H

**SEER® for Systems Engineering (SEER-SYS™)** empowers system designers with the ability to assess systems engineering cost and schedule impacts based on system design attributes. Perfect for organizations moving to an MBSE approach, SEER-SYS can be used early — when key system design decisions can have the greatest impact.

**A Greater Level of Specification** — SEER-SYS' organic estimation approach is an alternative to the Systems Engineering and Integration estimates in SEER-H™ and builds upon the capabilities available in SEER-IT™, but provides a greater level of specification. With SEER-SYS, users can:

- Characterize system size based on requirements, interfaces, algorithms, and operational scenarios
- Perform trade studies and identify the effect of different program decisions on the systems engineering effort required
- Evaluate the impact of reusing existing system components against new designs
- Develop systems engineering budgets consistent with the work scope of ISO-15288
- Generate detailed systems engineering estimates, broken down to a Work Breakdown Structure consistent with ANSI-632
- Estimate systems of all sizes, from component level to System-of-Systems
- Incorporate other costs such as licenses, tools, and software development as part of the system design trade
- Predict systems engineering staffing requirements over the span of the project



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**Vetted and Custom Knowledge Bases** — SEER-SYS includes four Knowledge Base categories that provide previously vetted, industry standard parameter settings. It also allows users to create and use their own Knowledge Base for company standard parameter settings, ensuring more consistency between estimates.

- **Environment/ Platform:** Describes the operating environment or platform for the project. Knowledge Bases provided include Air-Manned, Air-Unmanned, Commercial, Ground, Industrial, Sea, Space-Manned, and Space-Unmanned.
- **System Level:** Defines the system hierarchy and the system level being modeled. Knowledge Bases provided include System-of-Systems (SoS), Major System, Major Subsystem, Minor Subsystem, Line Replaceable Unit, and Component.
- **Application:** Defines the technology application of the system being developed. Knowledge Bases provided include Aerospace and Telecommunications. Several more detailed application knowledge bases are planned including Automotive, Data Systems/IT, Manufacturing, Military/Defense, Scientific/ Research, Space Systems, and Transportation.
- **Acquisition:** Defines the maturity of the system being modeled. Knowledge Bases provided include Follow-on Program and New Development/ First Release.

**Cost Modeling Framework** — In addition to the core estimation capability, SEER-SYS employs a multi-faceted approach to estimating and costing, leveraging industry metrics, proven formulaic cost relationships, as well as the ability to define your own modeling rates, factors and formulas.

- **Parametrics** built into SEER-SYS are used to compute systems engineering labor based on descriptive system sizing and program attributes.
- **Rate & Quantity** models can be easily set up for rapid calculation of effort and cost when basic variables are known.
- **User Defined** models and relationships can be defined and used to supplement the built-in predictive analytics. Such capability can also be used to flow down high-level solution requirements into detailed estimating parameters.
- **Detailed Labor Costing** is accomplished by mapping estimated labor to specific labor roles from the labor rate catalog. Evaluate the cost impact of different teams or skills mix for any scenario.
- **Financial** models for costing and pricing using local currency, wraps/markup, margin, and fixed price.