

# SEER<sup>®</sup> for IT: Infrastructure, Services for Project & Operations



SEER project estimation and management solutions improve success rates on IT Infrastructure and IT services projects and operations. Based on sophisticated modeling technology, SEER solutions help organizations assess up-front project feasibility, optimize project costs and schedules, assess risks and probabilities, monitor project progress, and develop detailed project plans.

All SEER solutions are built on the same design principles, incorporating the following application elements:

- Annotated and guided interface for defining projects
- Parametric simulation engine
- Project-applicable Knowledge Bases
- Numerous standard and custom reporting options

Open architecture and APIs ensure that SEER applications can be easily integrated with departmental productivity solutions and enterprise applications.

### **A DIFFERENT KIND OF PROJECT MANAGEMENT: AVOID SURPRISES**

SEER by Galorath solutions fill a missing link between project design and project execution... Project Portfolio Planning, enabling organizations to rapidly establish an integrated project lifecycle plan: Developing a concept > testing its feasibility > optimizing project costs, schedules, quality and risk > monitoring and controlling project progress > identifying when (and what) mid-course corrections will ensure the project stays on track.

### **NOT-SO-BEST PRACTICES ELIMINATED**

Many estimates today are prepared more or less manually by scarce, over-committed personnel with manual or minimally-automated processes, such as spreadsheets and other homegrown tools.

One-off practices are, by definition, practices that are non-repeatable and highly susceptible to human error. Individual planners may be overly optimistic or pessimistic. They may be influenced by internal politics or other factors unrelated to the project. They may over or under-estimate the impact of risk and uncertainty by employing an arbitrary and incorrect risk multiplier. Or they may simply overlook some of the less obvious project elements.

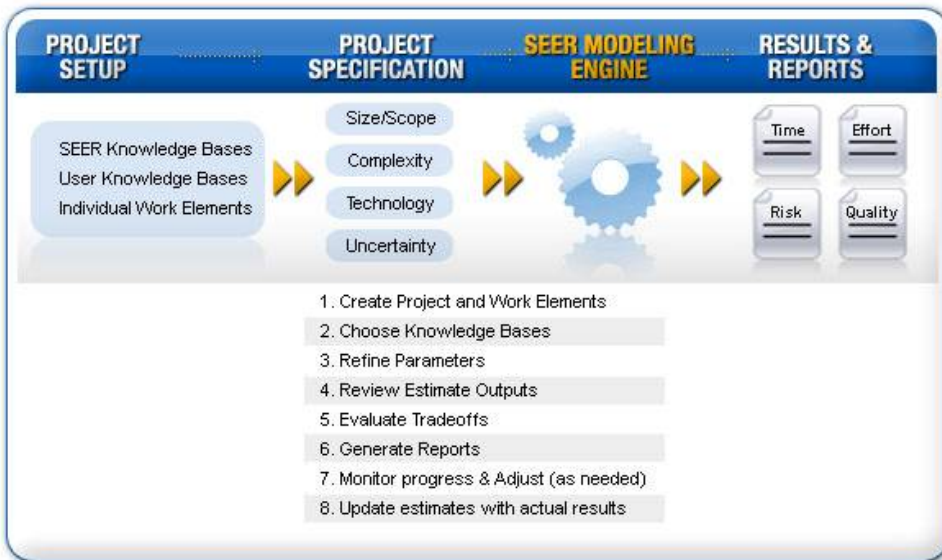
SEER by Galorath solutions fill a missing link between project design and project execution, enabling organizations to rapidly establish an integrated IT project lifecycle plan: Developing a concept, testing its feasibility, optimizing project costs, schedules, and risks, and developing reliable project plans.

### **WHAT IS PARAMETRIC MODELING?**

Parametric methods are very useful for subjecting uncertain situations to the rigors of a pre-defined and validated mathematical model. They can usefully embody a great deal of prior experience and are less biased than human thought processes alone.

Parametric modeling takes its name from the project parameters or variables that are modified during the project simulation process. Parametric modeling provides "fact based" estimating techniques including mathematical equations as well as interpretation of historical data. Repeatable processes are also supported.

In order for parametric models to have any validity they must be based on or proven using actual project data. It is the sophistication of the data analysis methods and the extensiveness of the underlying project data which determine the effectiveness of a modeling solution.



SEER Parametric Modeling Process

**DEVELOPING AN ESTIMATE**

A SEER for IT estimate can be developed quickly using SEER’s intuitive, windows-based interface. Generate a new project from an existing project “template” or by adding and defining individual work elements. SEER provides project results by generating a virtual project based on

the SEER Modeling Engine and IT Knowledge Bases.

**The SEER Modeling Engine:**

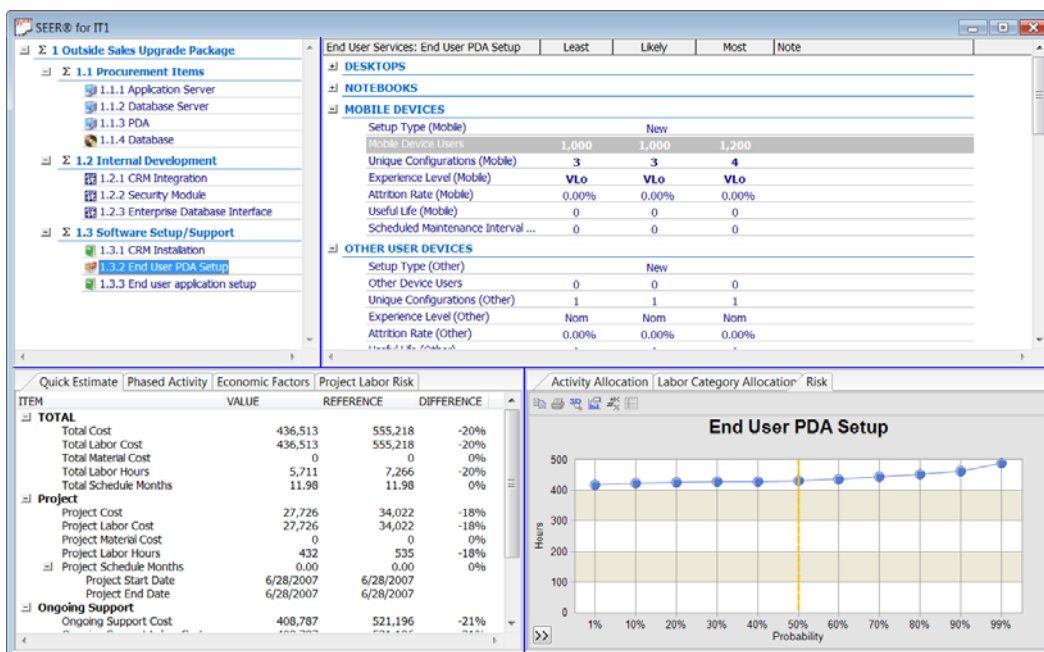
The SEER-IT solution employs a multi-faceted approach to project estimating, leveraging industry and/or company project histories and proven formulaic cost relationships.

Initially, SEER-IT computes a normalized estimate based on labor standards and material costs. Cost Estimating Relationships (CERs) are applied to the normalized estimate to address organization-specific factors such as experience levels, system complexity, reliability requirements, and service level agreement as well as project specific factors such as quantities, labor rates, and number of users.

**SEER Knowledge Bases:**

SEER Knowledge Bases serve as a virtual “in-house expert,” providing default project values, ranges, and calibrations based on comparable project histories.

Together, these capabilities enable users to develop first-look estimates when very little information is known, and to refine those estimates over time as additional details become available.



SEER for IT has a collection of estimation elements, or process models, which can be used to build a work breakdown structure. Each element has a set of inputs, calculations, rates and factors (used to compute costs) and a set of outputs. Elements/process models provide logical groupings for IT activities and can be used to fully define a project.

**Rollup:** A summary element representing the sum of the elements beneath it.

**Purchased Hardware:** Purchase and support costs for purchased or leased hardware items.

**Purchased Software:** Purchase and support costs for purchased or leased software items.

**Application Development:** Development effort as a summary number of hours, hours by phase, or hours by labor category. Software development inputs can be derived from SEER for Software.

**Software/Database Services:** Effort associated with deploying and supporting enterprise applications and databases, as well as middleware and software services.

**End-User Services:** Effort associated with setup, deployment and support of end-user systems such as PCs, notebooks, and mobile devices.

**Facilities:** Cost of installing and maintaining network cables and facility build-out, including utilities, telecom services, and supplies.

**Training:** Training delivery costs for and/or developing or purchasing training programs and courseware.

**Service Desk:** Operation of a service desk including end-user system and application support.

**User Documentation:** Effort to develop and publish user documentation for IT applications and systems.

- 1 EZOP System Initiative
  - 1.1 Infrastructure Systems
    - 1.1.1 Server setup
    - 1.1.2 Enterprise application setup
    - 1.1.3 Desktops
    - 1.1.4 Desktop application setup
    - 1.1.5 Purchased - Servers
  - 1.2 End user systems
    - 1.2.1 Desktops
    - 1.2.2 Desktop application setup
    - 1.2.3 Purchased - Desktops
  - 1.3 Business support
    - 1.3.1 Tier 1 service desk operations
    - 1.3.2 Purchased Training
    - 1.3.3 User reference manual

Quick Estimate		Phased Activity		Cost By Fiscal Year			
FISCAL YEAR	PROJECT IN-HOUSE	PROJECT CONTRACT...	PROJECT MATERIAL	ONGOING S... IN-HOUSE	ONGOING S... CONTRACT...	ONGOING S... MATERIAL	
Fiscal Year Start Month: 10 Base Year: 2007							
2008	14,325	34,775	29,500	5,108	12,178	0	
October	2,309	6,171	0	0	0	0	
November	3,319	7,905	0	0	0	0	
December	5,579	13,265	0	0	0	0	
January	3,118	7,434	0	203	484	0	
February	0	0	0	585	1,396	0	
March	0	0	29,500	626	1,492	0	
April	0	0	0	605	1,444	0	
May	0	0	0	626	1,492	0	
June	0	0	0	605	1,444	0	
July	0	0	0	626	1,492	0	
August	0	0	0	626	1,492	0	
September	0	0	0	605	1,444	0	
2009	0	0	0	7,367	17,566	0	
2010	0	0	0	7,367	17,566	0	
2011	0	0	0	7,367	17,566	0	
				0	7,387	17,614	0
				0	7,367	17,566	0
				0	7,367	17,566	0

Quick Estimate		Phased Activity					
ACTIVITY	SCHEDULE MO...	LABOR HOURS	LABOR COST	MATERIAL COST	TOTAL COST		
Analysis	0.47	36	3,962	0	3,962		
Design	0.26	21	3,009	0	3,009		
Procurement	5.30	0	0	29,500	29,500		
Construction	0.91	79	7,969	0	7,969		
Test	1.21	223	22,898	0	22,898		
Training	0.00	0	0	0	0		
Distribution	0.72	112	11,263	0	11,263		
Other	0.00	0	0	0	0		
<b>Project Total</b>	<b>6.04</b>	<b>471</b>	<b>49,106</b>	<b>29,500</b>	<b>78,606</b>		
Ongoing Support	119.98	2,472	249,495	0	249,495		
<b>Total</b>	<b>123.56</b>	<b>2,943</b>	<b>298,595</b>	<b>29,500</b>	<b>328,095</b>		

**Additional Items:** Any additional costs or effort not covered by other SEER for IT elements that may be specific to the environment.

## USING & DOCUMENTING RESULTS

Numerous charts and reports are available for quickly summarizing and communicating project outcomes, alternatives, and work-in-progress. Results can be documented using SEER's rich reporting capabilities, saved to a variety of other formats including Excel, HTML, RTF, text, and PDF, or can be exported to 3rd-party applications such as Microsoft Project.

**Quick Estimate:** Provides a quick summary of the overall estimate. Set a baseline estimate to perform extensive what-if analyses.

**Phased Activity:** Shows schedule months, labor hours, labor cost and material cost for all phases including ongoing support.

**Labor Detail:** The labor detail shows hours and costs for each of the labor categories included in your estimate.

**Economic Factors:** Specify what percentage is done in-house to determine total labor for both in-house and contracted efforts.

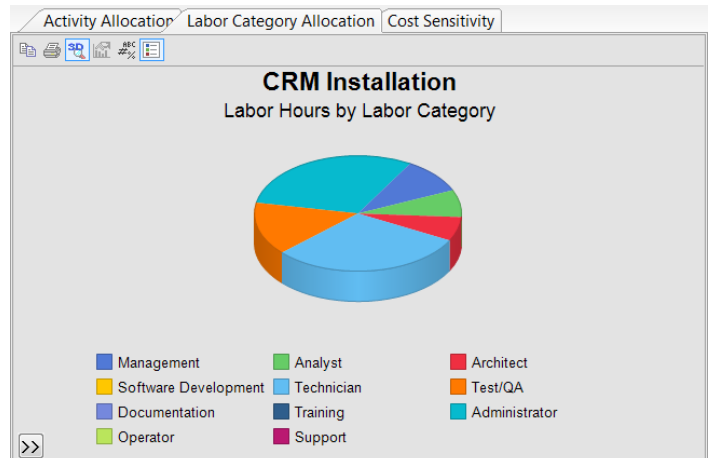
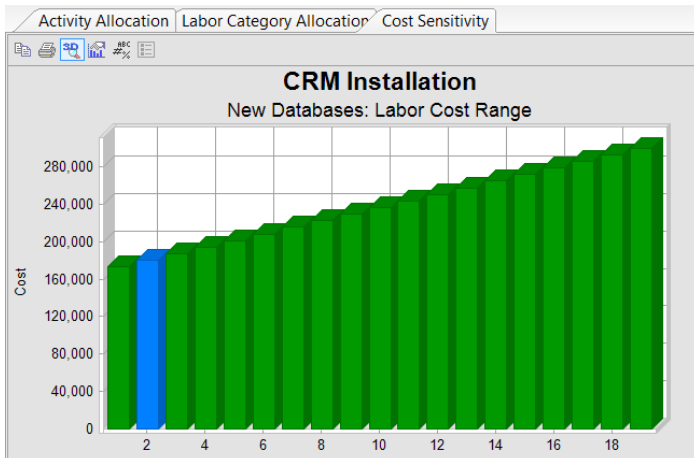
CONFIDENCE LEVEL		PROJECT LABOR HOURS	PROJECT LABOR COST				
10%		6,949	787,334				
20%		7,002	794,073				
30%		7,137	804,666				
40%		7,251	816,747				
50%		7,389	831,396				
60%		7,495	842,292				
70%		7,712	859,415				
80%		7,822	869,907				
90%		7,970	885,941				
Mean		7,437	834,498				
(Based on 100 iteration sampling)							
Work Element Allocation of Most Likely Lab...							
		Project Labor...	% of Total	Std Dev	Project Lab...	% of Total	Std Dev
[-] Outside Sales Upgrade Package		7,389		428.92	831,396		40,912.71
[-] Procurement Items							
[-] Internal Development							
CRM Integration		1,362	18.43%	53.87	172,575	20.75%	6,804.58
Security Module		1,213	16.41%	71.18	153,670	18.48%	8,991.79
Enterprise Database Interface		2,217	29.99%	77.22	280,771	33.77%	9,754.82
[-] Software Setup/Support							
CRM Installation		2,059	27.86%	404.33	190,022	22.85%	37,041.02
End User PDA Setup		538	7.28%	20.12	34,358	4.13%	1,303.34
End user application setup		0	0.00%	0.00	0	0.00%	0.00

**Project Risk Analysis:** Cost and hours as a function of the probability of completion within budget, broken out into labor hours, labor cost, material cost and total cost. Users may also have the system perform a Monte Carlo simulation to compute risk at all project levels.

**Cost by Fiscal Year:** Allocates in-house, contractor, material and total costs into fiscal years. View costs by fiscal year as well as month-to-month

**Monthly Details:** Cost or labor hours grouped by labor category, phase or in-house vs. contractor, reported in monthly increments.

SEER IT comes with a set of sample Knowledge Bases pre-calibrated for a variety of IT activities. Users can also create custom Knowledge Bases and perform analyses with metrics derived from company project histories and task labor standards.



## ABOUT GALORATH

Galorath Incorporated has invested more than two decades developing solutions to help government and commercial organizations plan and manage complex projects. SEER solutions combine an intuitive interface, extensive project-applicable knowledge bases, sophisticated project-modeling technologies and rich reporting features to expedite the planning process and keep projects on track.

SEER solutions are employed by thousands of users worldwide in financial, manufacturing, high-technology and government institutions to obtain a rapid and powerful view of the critical factors driving program decisions and success.

## ON TIME. ON TARGET.

- Develop accurate project estimates more quickly based on sophisticated project simulation/parametric modeling technology.
- Assess project feasibility in the conceptual phase when little information is known.
- Understand and manage IT project cost drivers.
- Avoid surprises to management and stakeholders with achievable estimates and plans.
- Develop realistic schedule, cost, and staffing estimates for IT projects and their ongoing operations.
- Analyze complex and interdependent project options and trade-offs across the IT lifecycle (design, development, maintenance, and operations)
- Assess risks/determine probabilities for achieving schedule and cost objectives.
- Provide a consistent framework to drive a standardized and repeatable process for estimating and planning IT projects.

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