Using Metrics to Manage Runaway IT Projects

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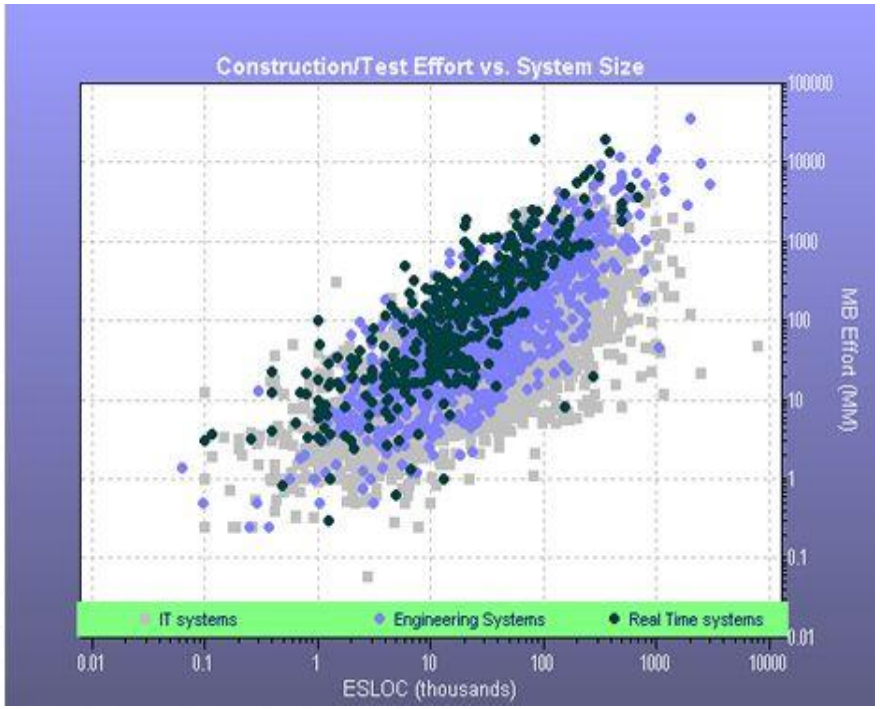
QSM – Who We Are

Celebrating our 42 Year Anniversary!

- Experts in the Field of Estimation, Metrics and Project Control
  - 42 year track record of innovation and success
  - Developers of the SLIM-Suite of estimation and project control tools
  - Leading product and services company, thought leader, and research provider
  - We help our clients plan and negotiate their project cost, duration, and quality targets

The QSM Industry Database - Over 42 years of Research

- Industry-leading research that validates the SLIM estimation model, over 13,000 completed projects
- Gives us a good understanding of the fundamental relationships
- Provides the latest information on software cost, duration, effort, quality, team size, and scope, which we leverage to help our clients



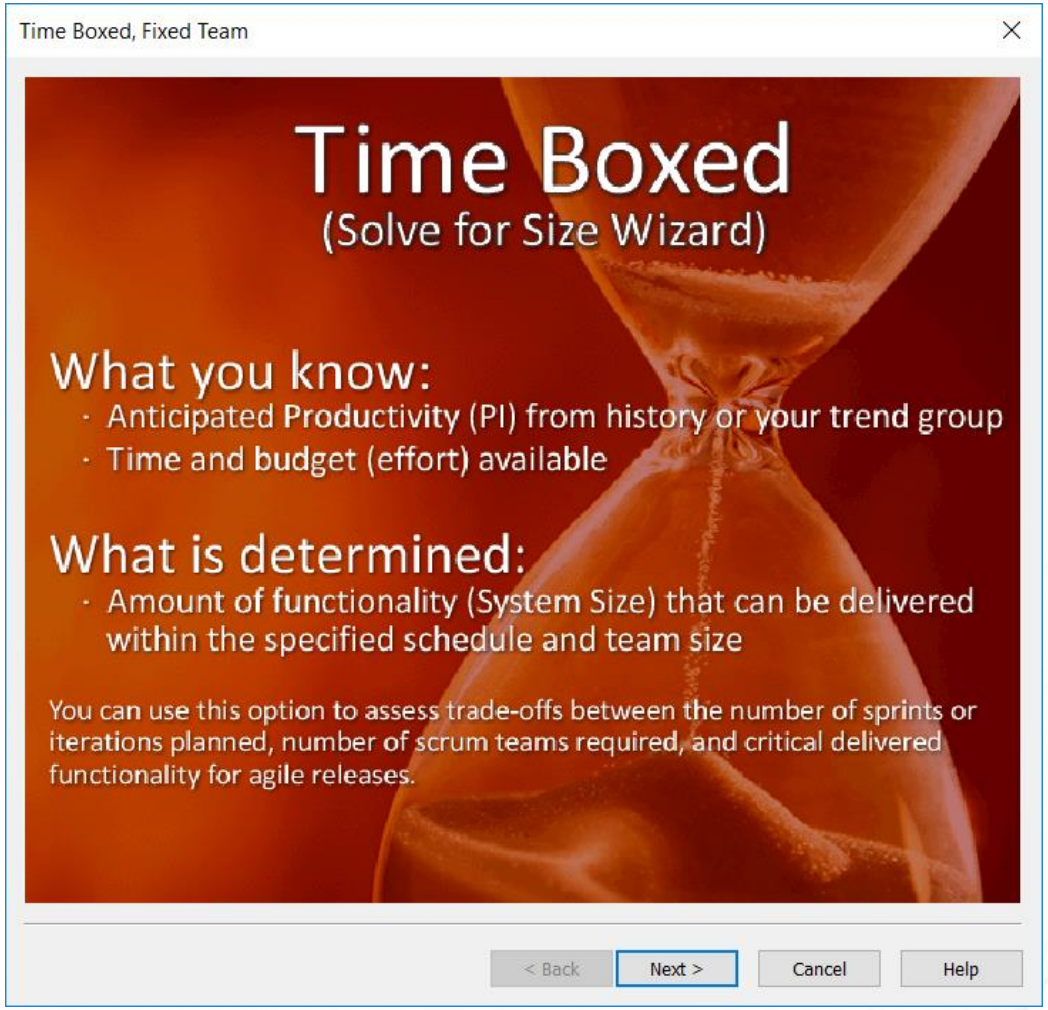
Runaway Project Challenges

- Dealing with unrealistic cost and schedule targets because of bad estimates
- Requirements changes
- Short time frame to make decisions
- Resetting customer expectations
- No metrics-based approach to help with negotiations

Meeting the Challenges

- Capture historical data to improve estimates
- Use empirically based models to mitigate early planning risk
- Commit to good estimates
- Perform adaptive forecasting when things change
- Leverage sizing and productivity data while the project is in-flight
- Use metrics to negotiate and to reset customer expectations

Ensure Estimation Flexibility to Make Good Decisions



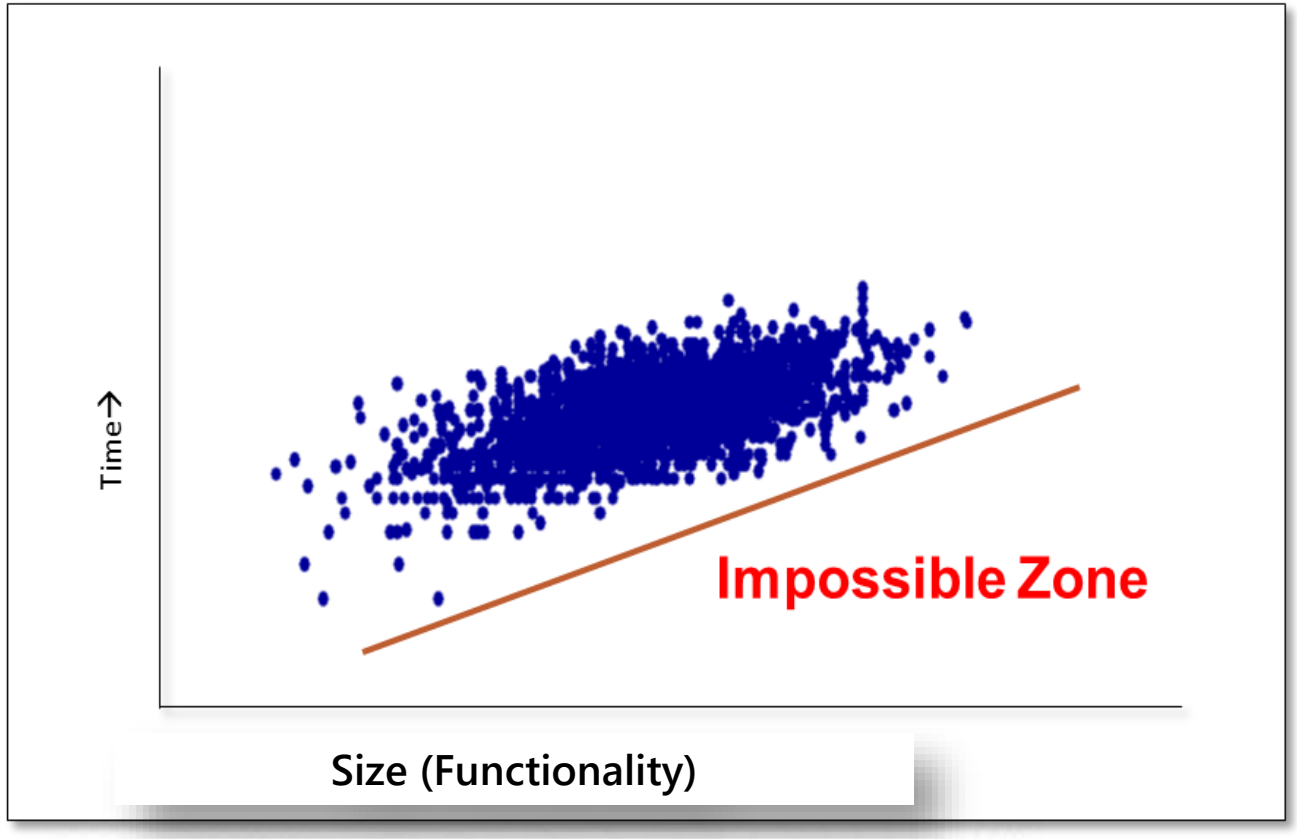
The Software Production Equation

Delivered System Size Is proportional to Effort over Time at some level of Productivity

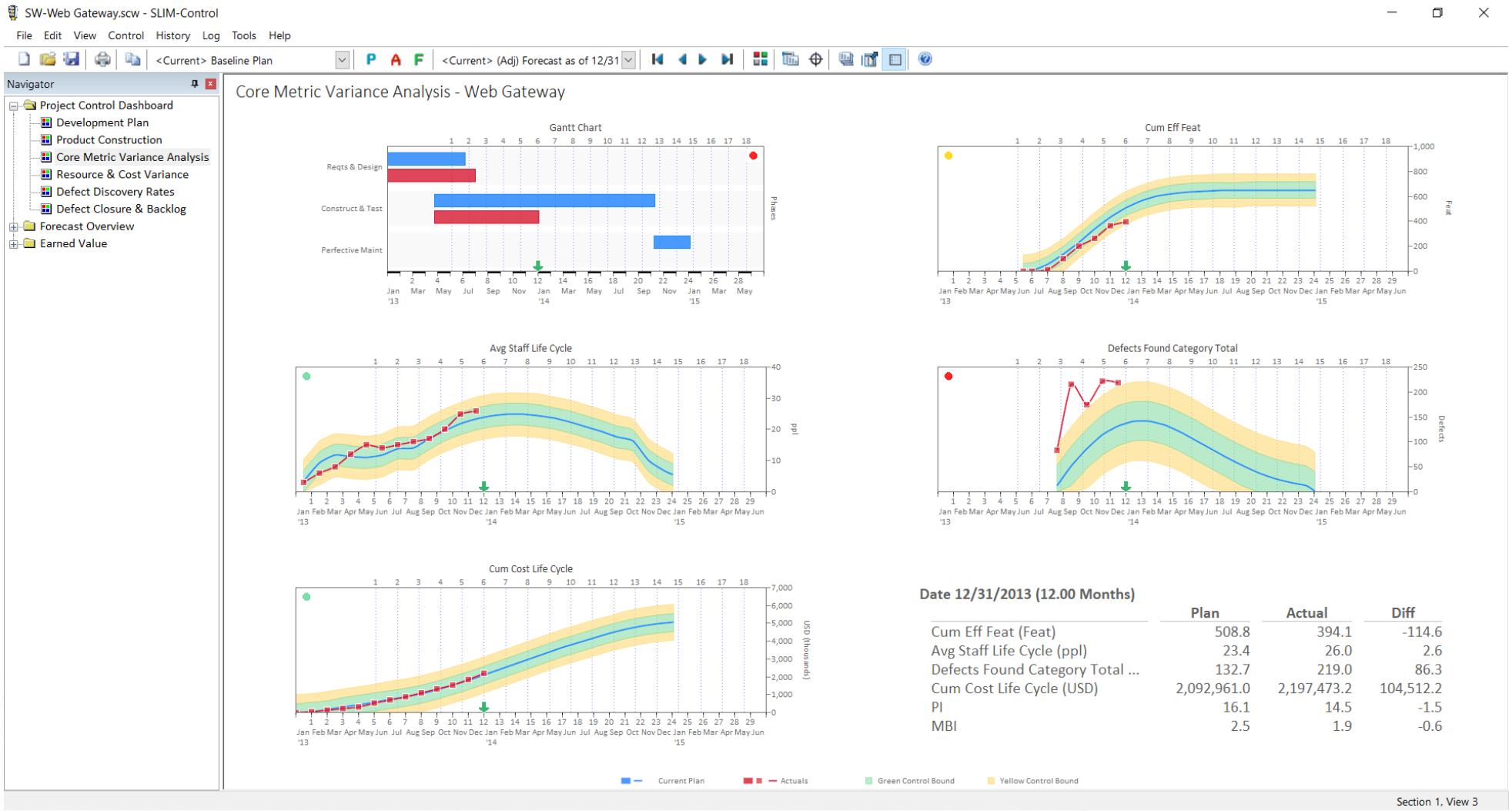
Value Delivered	Resources Expended	Duration Required	Influenced by Capability and Difficulty of the task

This equation can be re-arranged to solve various estimation problems.

Leverage Historical Data to Avoid the "Impossible Zone"



Assess Plans & Actuals



Perform Adaptive Forecasting

Analyze Risk Trade-offs to Gain Control

Tradeoff Forecasting

Forecast Name: (Adj) Forecast as of 12/31/2013

New Phase 3 Staffing Profile

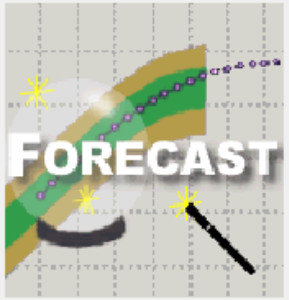
Enter a peak value and a staffing shape for the remainder of phase 3.

Peak: 26

Staffing Shape: Rayleigh Med Front Load

Apply

Smooth staffing between phases 3 and 4.



Construct & Test Results

	Curve Fit	Tradeoff
Actual Peak:	27.4	26.2
Effort (PHR):	76654.1	71877.0
Cost (USD 1000):	5596	5247
Time (Mos):	21.4	21.8
End Date:	2/3/2015	2/16/2015
Implied PI:	14.5	14.5

A 6 % decrease in cost and effort over the default staffing projection will result in a 1.9 week increase in phase 3 time.

OK Cancel Help

Questions?

Please feel free to contact me with any questions.

Thank you!

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