Practical Software and Systems Measurement

A foundation for objective project management

SE Leading Indicators
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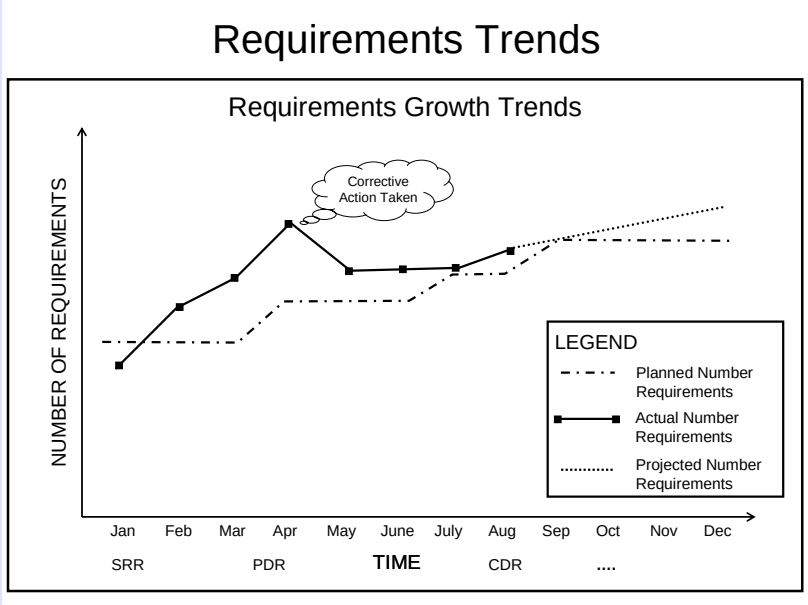
Systems Engineering Leading Indicators

- Thirteen leading indicators defined by SE measurement experts
- Developed by a working group sponsored by Lean Aerospace Initiative (LAI) collaboratively with INCOSE, PSM, and SEARI
  - Supported by 5 leading defense companies and 3 DoD services
- Beta guide released December 2005; pilot programs conducted in 2006; Version 1.0 released in June 2006
- Additional leading indicators being defined
- Several companies tailoring the guide for internal use

Objective: Develop a set of SE Leading Indicators to assess if program is performing SE effectively, and to enhance proactive decision making



Next Steps

- ***No immediate update – need to allow time for implementation***
- ***Develop 1 hour executive marketing pitch***
- ***Develop 3-4 hour tutorial***

Potential Future Work

- ***Consider additional indicators***
  - ***Rework trends by product type***
  - ***Trends of known/unknowns and unknown/unknowns***
  - ***Trends of requirements mapping to architecture and test***
  - ***Capabilities definition trend***
  - ***Stakeholder team involvement***
- ***Consider Matrices for:***
  - ***Cost Effective set of Base Measures***

Potential Future Work

- ***Areas of Focus***
  - ***Concept Development***
  - ***System-of-System and Capabilities – front-end of acquisition***
  - ***Architecture***
  - ***Baseline management***
  - ***Process performance***