

NDIA Systems Engineering Division Software Committee Report

22 April 2015

Paul Croll and Ken Nidiffer (Co-Chairs)

Overview



- Background
- Actions Since Last SED Committee Meeting
- Next Steps

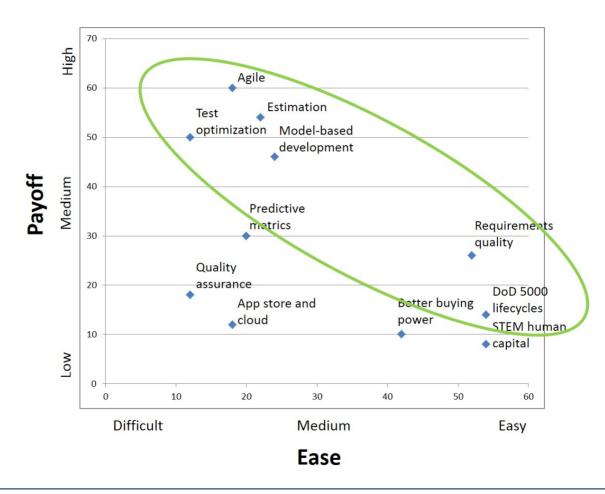
Background



- Tom Hurt, DASD/SE requested the NDIA SED Software Committee to provide an industry perspective regarding opportunities for "DASD(SE) to improve the practice of software engineering"
- The Committee held several virtual meetings and identified eleven areas for consideration
- These areas were then ranked in terms of Payoff and Ease of Implementation
- Detailed recommendations were developed for seven opportunities for improvement
- Committee members included:
 - Paul Croll, PR Croll LLC (Chair); JoAn Ferguson, General Dynamics; Gary Hafen, Lockheed Martin (retired); Cheryl McIntyre, Lockheed Martin; Cynthia Molin, Raytheon; Ken Nidiffer (Co-Chair), SEI; Shawn Rahmani, Boeing; Rick Selby, Northrop Grumman; Tim Walden, Lockheed Martin

Background: Recommendations for Software Initiatives





Background: Recommendations for Software Initiatives



- 1. Agile/Incremental Software Development
- Improved Software Estimation and Integration with EVM and Technical Metrics
- 3. Test Optimization
- 4. Model Based System Development
- 5. Requirements Quality (Systems and Software)
- DoD 5000 Lifecycles: Incorporation of High-Impact Software Enabling Technologies
- 7. Software Assurance in Acquisition, Development, and Sustainment

Background: Recommendations for Software Initiatives



- Background [How did we get here?, Where are we now?]
- Desired State: [Where would we like to be?]
- Path to Closure [How to get there?]
- Metric [How do we know we have arrived?]
- Potential Contribution: [What can OSD/DASD(SE) accomplish to make a difference?]

Actions Since Last SED Committee Meeting



- Discussed results with Tom Hurt
- Worked with Rob Gold/Tom Hurt to establish meeting
- Briefed draft slides to DASD/SE 20 April 2015
 - Kristen Baldwin
 - Rob Gold
 - Tom Hurt
 - Jim Thompson

Next Steps



- Incorporate comments and produce final package
- Formal transmission of package by the NDIA to DASD/SE
- Follow-up meetings with Tom Hurt and Jim Thompson
- Based on DASD/SE priorities, jointly identify tasks in which the Software Committee and the NDIA Systems Engineering Division can play a continuing role
 - Development of guidance (e.g. extensions to the DAG, model RFP language, handbooks)
 - Workshops/Summits bringing together key industry and Government stakeholders to address best practices, roadblocks to success, and lessons learned
 - Studies to validate high-impact enabling software technologies



Questions?

Paul Croll and Ken Nidiffer
Co-Chairs, NDIA SED Software Committee
pcroll@computer.org
nidiffer@ SEI.cmu.edu