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Risk Expert Tool for Systems Engineering – Workshop Outbrief

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- Bill Golaz
- Joe Jarmzombek
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- Tom McMannes
- Lori Saleski
- Alex Shernoff
- Victoria Shu
- Kevin Woodward



- COSYSMO Introduction
- Expert COSYSMO Overview
- Systems Engineering Effectiveness Measures (Barry Boehm)
- Expert COSYSMO Project Implementation
 - Process and Measurement Frameworks (CMMI, SE Leading Indicators)
- Group Discussion



- Internet tool good for integrated, distributed project teams
 - But not all situations
- COSYSMO used at top-level, not multiple module estimation
 - Difficult to partition size inputs among modules
 - Expert COSYSMO usable at top-level
- Some will use in conjunction with COCOMO software cost estimation
- Monte Carlo feature is good complementary risk analysis feature



- Validation of output with project data from initial estimates and post-mortems
 - May need some normalization
- Suggestion for download agreement to provide feedback for those installing locally
 - Create a survey usage survey
- Use multiple estimators and reviews to converge on ratings
- Integrated cost estimate with Monte Carlo holds the cost and risk stories together



- Create separate .csv file for external analysis
 - Use in Excel and other tools for post processing
 - Import to other risk management tools such as ARM
- Mechanism to install on Intranets for competition sensitive data situations and black programs
- Include Expert COCOMO in the tool suite
- Refine Monte Carlo for user-supplied ranges
- Capability to add user-defined factors
- Updates are desired ASAP for pilot implementation



Model Suggestions

- Define cost factors with more objective inputs
- Compare and contrast the risk taxonomy with SEI Risk Taxonomy
- Extra advice rules to rate cost factors and detect input anomalies



- BAE Systems interested to pilot Expert COSYSMO
 - Integrate with existing COSYSMO toolset
- NAVAIR interested to pilot Effectiveness Measure tool and Expert COSYSMO
 - IPTs need tools to identify risks
- Lockheed-Martin Aeronautics ISIS program is possible pilot



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<https://diana.nps.edu/MSAcq/tools/ExpertCOSYSMO.php>

or

<http://csse.usc.edu/tools/ExpertCOSYSMO.php>