COMBINING HETEROGENOUS MODELS

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ABSTRACT

In January of 2015, the Analysis, Simulation and Systems Engineering Software Summit (www.assessinitiative.com/congress/assess-2015/) was held at the Santa Fe Institute in Santa Fe New Mexico. The purpose of this Summit was to identify and resolve the issues that confront the simulation software industry as we moved beyond the recent economic crash and faced new and complex challenges. The need for simulation tools, products, and services has never been higher, yet we face major challenges limiting our ability to capitalize on that need. The Summit was designed to put a stake in the ground and prioritize issues, expose hidden issues, and start the conversation that we jointly benefit by discussing.

The attendees put a total of 104 issues up for discussion, which were then narrowed down to 24 key challenges, and finally, after much discussion, eight issues emerged as the most critical. These were:

1. Design-Centered Workflow

2. Ease of Use & Usability

3. Pre-CAD Analysis & Optimization

4. Impact of Web/Cloud/Mobile

5. Knowledge Capture & Reuse

6. Ability to Combine Heterogeneous Models in a Systems Approach

7. Appropriate Model Fidelity & Role of Unsexy Stuff

8. Licensing Models Need to be Revised

Subsequent to ASSESS 2015, Cyon Research conducted a poll of many different stakeholders in analysis, simulation and systems engineering software tools, including users, tool vendors, and industry analysts, to identify which of these eight issues were considered most important to each of these different groups. Across the board, every stakeholder group identified #6, the *ability to combine heterogeneous models in a systems approach*, as one of their top priorities. In this talk we will examine the challenges that must be overcome to meet this

requirement, and examine one possible strategy for meeting those challenges.