



**CROSSROADS OF AMERICA
CHAPTER**

Chapter Meeting

6:00 PM, Tuesday, December 11, 2018 www.incose-coa.org

Program:

How Systems Engineering with SysML Helps in Complex Systems Design

Systems Engineering is essential for the creation of complex systems. The issue we face today is that the systems we build today are becoming more complex, are facing demands for ever-shortening time-to-market, and the systems are expected to accomplish more functionality while consuming less resources than in the past.

Model Based Systems Engineering is the answer to meet this challenging. Through Model Based Systems Engineering, we are able to design multidisciplinary systems, validate that they logically meet their requirements, and integrate these models with other model-based engineering tools (ECAD, CAD, etc.) for full traceability from requirements through to implementation. This leads to better optimization of resources in the system, and through re-use we are able to reduce the amount of time to design new systems and enhance existing ones.

The MagicGrid is a framework that guides the development of SysML models and assists with creation of complete complex systems. In this presentation, we will conclude by walking through the Case Study of a car's Climate Control System from the user requirements through the physical interface design to demonstrate why SysML is so valuable.

Presenter: Alecander Jackson



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Meeting Location / Host Site (see included directions and map to host site and parking)

SAIC
4422 Bragdon Street
Indianapolis, Indiana

Satellite Site

No satellite site this month

Remote Access: If you cannot attend at the host location, join us remotely:

Web access: <https://incose.pgimeet.com/GlobalmeetTwo> (join as a GUEST)

Audio: (719) 457-1414

Guest Passcode: 514-684-9877



Meeting RSVP

To assure that we have a (complementary) meal and seat reserved for you, please email your plan to attend to rmdenoincose@gmail.com. You do not need to be an INCOSE member to attend!

If you plan on attending at the SAIC host site, please provide the following information so that your name can be entered into the SAIC security system:

Name
Organization
US Citizen?

Event Schedule

6:00 – 6:10	Arrival, Security Check In
6:10 – 6:30	Light Meal, Informal Networking
6:30 – 7:00	Business Meeting
7:00 – 8:00	Program
8:00 PM	Adjourn

Business Meeting:

- Call to Order
- Approve/update minutes from previous Chapter meeting
- Announcements
- Treasurer's Report
- Old Business
- New Business



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Biographies



With a background in embedded systems design with applied Artificial Intelligence, **Alec Jackson** provides a unique perspective on the value of Model Based Systems Engineering with respect to the creation of complex systems.

As a Solution Architect, Alec uses his background in Electrical Engineering and Computer Science to guide clients in adoption of MBSE to solve real-world challenges. Alec also works on a multitude of internal and external projects including scripting, automatic-report generation, plugin development, teaching both SysML and UML to 3DS customers.

Alec's primary mission is to develop easy solutions which use MBSE to meet the needs of any engineering project within any domain. He is well versed in SPICE (Simulation Program with Integrated Circuit Emphasis), VHDL, PCB Design, UML, SysML, and utilizes a plethora of programming languages in his daily work.



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Directions to Host Meeting Site: (Indianapolis)

SAIC is located on the east side of Indianapolis, off Pendleton Pike, at 4422 Bragdon Street. See maps below.

