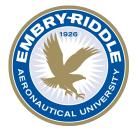
# Development of an Analysis Tool for Cybersecurity Assessment

Sprint 1
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### Product Vision/Expectations

For this project, the objective is to research and develop a cybersecurity analysis tool for use in an Aerospace Technology environment. This tool will be supported by a MBsE (Model Based Systems Engineering) tool to be developed by the team. By the end of the term, the expectation is that there will be a functional Cyber Analysis environment that can be used to identify safeguards in physical and virtual aerospace environments to protect against the growing cybersecurity threats of today's world.

# Sprint 1 Backlog

#### To Do

- Begin Researching Cyber Security Analysis Tools
- Determine Hardware and Software System Requirements

#### **In Progress**

- Acquire MagicDraw Licenses
- Analyze Provided Scholastic
   Papers for Project Direction
- Gain a Working
   Understanding of Capella
   Software
- Create Project
   Requirements
- Begin Learning About MBsE
   Processes and Procedures

#### Done

- Create Sprint 1 Backlog
- Create Product Vision Statement
- System Requirements
   Specification v1
- System Design Document v1
- Sprint 1 Demo

# Major Functions of Product

The major functions of the system are as follows:

- Define network(s) of interest
- Define threats of concern
- Establish applicable conceptual data infrastructure and data structure
- Establish applicable data sphere and usage spheres
- Define cybersecurity strategies for specific threats
- Identify data acquisition methods (sensors, streaming, security log files)
- Identify current sensor vantage and blind spots (visual schemas)

### Functionality Requirements

- The software shall import networks of concern from the user.
- The software shall import a prioritized list of threats of concern from the user.
- The software shall import an externally defined (Capella or MagicDraw) model
- The software shall perform analysis on the model (TBD)
- The software shall transfer analysis results when completed to the user interface module for display.

<sup>\*\*</sup> These requirements are still in the making and can be modified/removed/adjusted at any time.

# Model Based systems Engineering (MBsE)

Unlike standard written documentation, most of the systems represented using MBsE are more represented with diagrams and models. Models can be simple, or complex.

### What we did so far

#### We completed the following:

- SRS
- SDD
- Product Vision Statement

#### We learned about the following:

- MBsE (Model Based Systems Engineering)
- MagicDraw
- Capella

# How things went this sprint

#### What went well:

- Researching/learning/experimenting with the programs we will be working with the next sprint
  - o Capella, MagicDraw
- Getting a rough draft of our requirements and other important functionalities down in writing for the project.
- Completing the SRS and SDD.

### What didn't go well:

- Obtaining MagicDraw licenses
- System Complexity/Project Scope

### What's next

- Our first technical step is to write a parser for Capella's project format
  - This will allow us to import externally defined models, which we can perform analysis on
- Research analysis approaches and implement with help of parser
- Determine the UX story. Do we want a GUI? TUI? How should the user interact with our application