



# The NorthCoast Interfacer



<http://www.incose.org/cleveland/index.htm>

## President's Corner



First, I would like to welcome this year's new Board: Marian Cronin – VP, Katie Trase – Secretary, and Ernest Ansu-Gyeabour - Treasure. Special thanks to Past-President Bill Klinger for working long hours during the Holidays to get as much evidence as possible into the Chapter Awards website. This was a quite an effort with all the technical difficulties with the submission site! Let's hope for a successful outcome from 2014 Awards.

This year, our chapter is directing considerable effort in hosting the INCOSE Great Lakes Regional Conference - GLRC9. This event rotates through the chapters surrounding the Great Lakes, and this year is in Cleveland with the theme of Resiliency. The dates are October 23-25th, and more information will follow. Also, we plan to host more meetings in Independence this year near I-77 and Rockside Road, in order to make the location more central and accessible to both those east of Cleveland and in those in the Akron area.

Finally, the INCOSE Power and Energy Systems Working Group will be hosting the annual EnergyTech 2015 in Cleveland the week following GLRC9. This year, it will be in conjunction with the Security Summit, another popular Cleveland-based event.

I look forward to seeing you all at an upcoming meeting, and at the GLRC9 conference in October!

Sincerely,  
Carl Dister  
C-NO President (2015)

## Congratulations

Congratulations to Sean Beckman on attaining INCOSE's Certified Systems Engineering Professional (CSEP) in January 2015.

# The (SysML) Model Wedding, Article 3

Our wedding day draws nearer: less than four months to go! As an individual that likes to have everything planned out, you might think I’ve got everything figured out (I *am* building this model!). Truthfully, I have hardly *any* of the details finalized that give a fancy party the “emergent wedding behavior!” I made the mistake of implementing a color code in my wedding model to indicate which elements I have left on my To-Do list: most elements are colored red, or “not started,” in Figure 1.

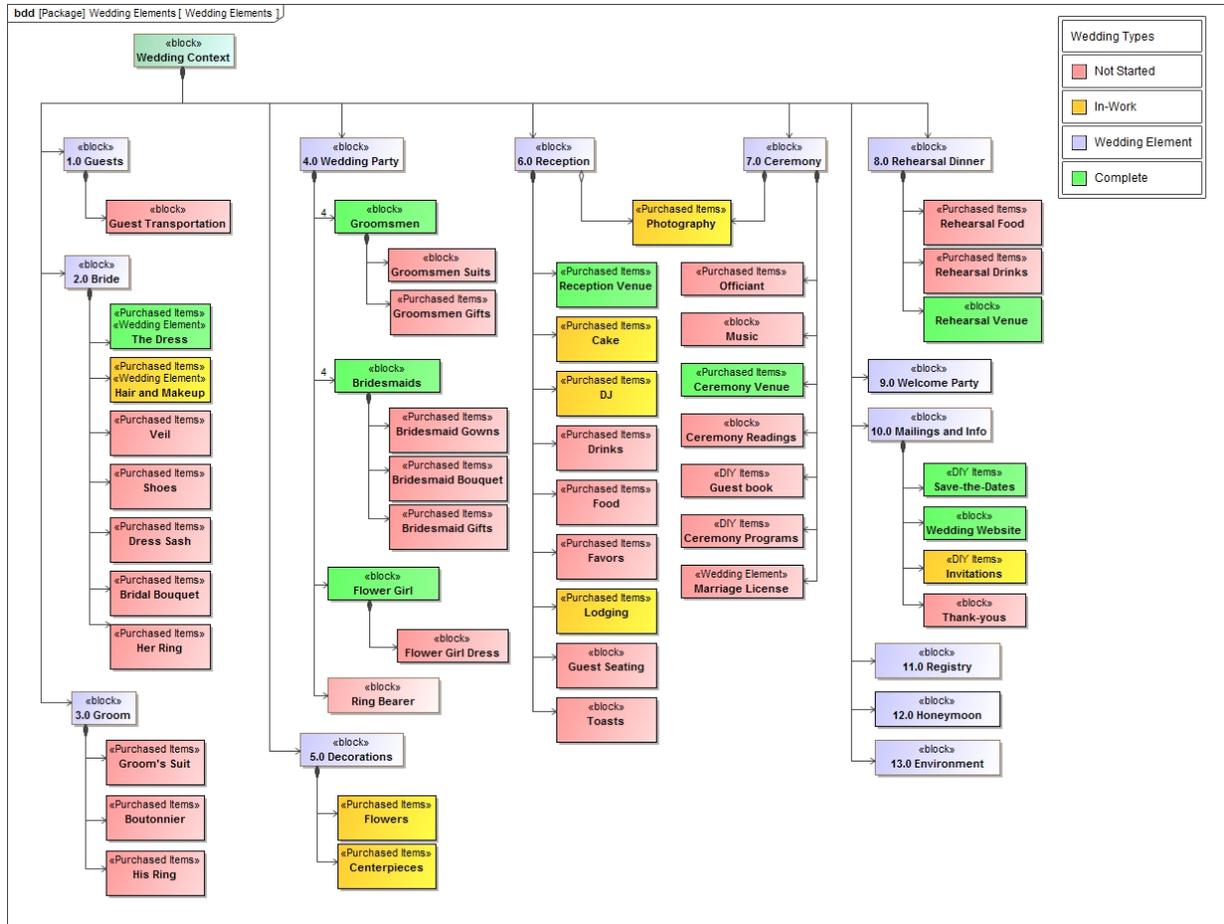


Figure 1: Wedding Elements Hierarchy with status color code

I did, however, do a little thinking about how our ceremony might be influenced by our environment (the weather), and took a few minutes to hold a “stakeholder review” of the wedding model with my parents.

## Ceremony Planning

Since we’ve decided on an outdoor wedding ceremony, I thought we should spend some time thinking about our “operational concept under off-nominal (weather) conditions.” I created a simple state machine diagram (Figure 2) to describe the two “states” of our wedding ceremony location: indoors or outdoors, and applied weather conditions to the transitions between the two states.

While ceremony preparation and post-ceremony activities would be different, depending on the weather conditions, we think our actual ceremony itself will remain the same, regardless of the weather. Thus, both states in Figure 2 reference the same “ConductCeremony” activity in the “do [while in the state]” field.

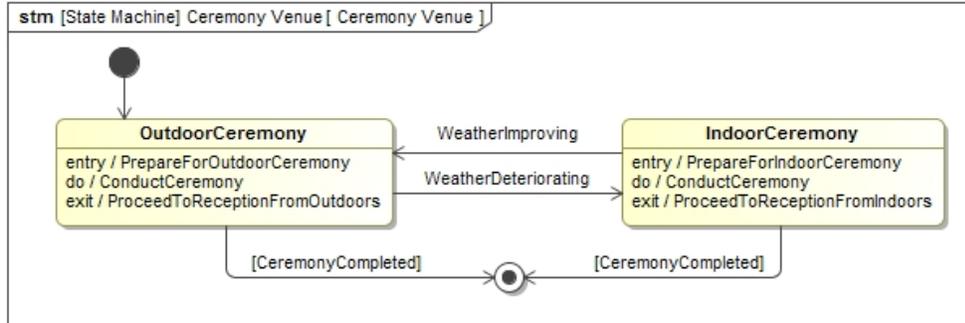


Figure 2: State Machine Diagram describing the state of our ceremony under changing weather conditions.

Figure 3 shows a possible order of events during our ceremony (I simply adapted a generic ceremony outline from the-only-wedding-checklist-you-will-ever-need website).

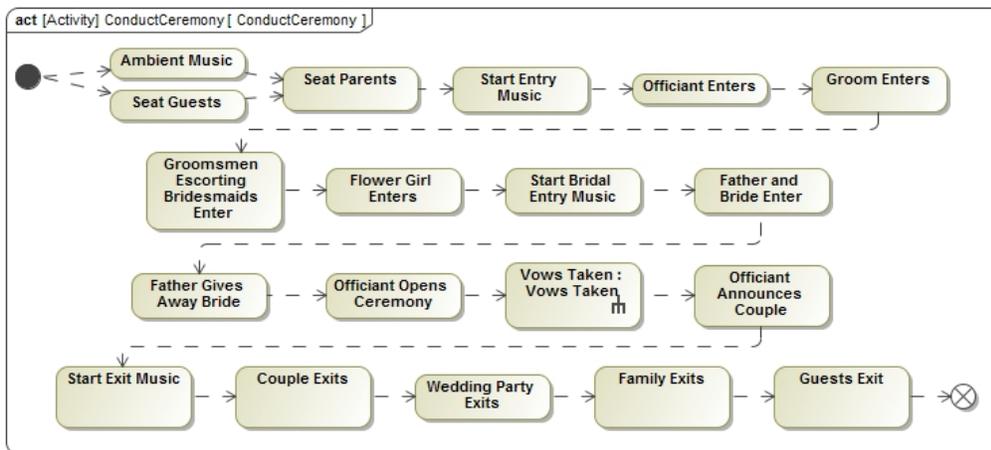


Figure 3: A possible ceremony “activity flow.”

For dramatic effect during the Stakeholder Review, I elaborated on the “Vows Taken” activity by developing two different sequence diagrams: one sequence for short vows, and one for more traditional vows. Having recently watched the movie, *Spaceballs*, I was inspired to model the short vows sequence diagram from a dialogue near the end of the movie (you might perform a YouTube search on the phrase “Spaceballs Marriage Scene” to refresh your memory. I’ll caution you that the clip gives away part of the ending, if you haven’t seen the movie previously!). Figure 4 depicts the short vows sequence diagram.

## Mid-Term Stakeholder Review

I chose to hold a Stakeholder Review with my parents to both update them on wedding plans and gauge their responses to seeing a model. My mother is a retired English teacher and has no knowledge of Model-Based Systems Engineering (MBSE) or the Systems Modeling Language (SysML). My father is an electrical engineer with some novice understanding of MBSE principles and SysML. I was curious to see how their different perspectives would influence their feedback. Both of my parents think I'm crazy for building this model!

I was particularly encouraged by my

mother's quick understanding of most of the model content (there's hope for senior management, yet!). As I explained what each diagram was intending to show, she was able to critique both the diagram's construction and my wedding plans! For example, my mother caught an error in my CeremonyVenue state machine diagram (I had erroneously modeled the default state as an indoor ceremony, when we are actually planning for an outdoor ceremony). We also talked for a while about how I set up my WeddingElements block hierarchy: should "The Dress" be a top level item that includes shoes, a veil, and sash, or should it be a low-level component? Both of my parents got a laugh out of the Spaceballs vows, but encouraged me to add a bit more to our actual vows.

In summary, I was pleased with the feedback from my parents. I was concerned that this Stakeholder Review might result in a few "unfunded mandates," but my budget emerged untouched! It is now high-time to start addressing those red blocks from Figure 1...

Katie Trase  
C-NO Secretary (2014)

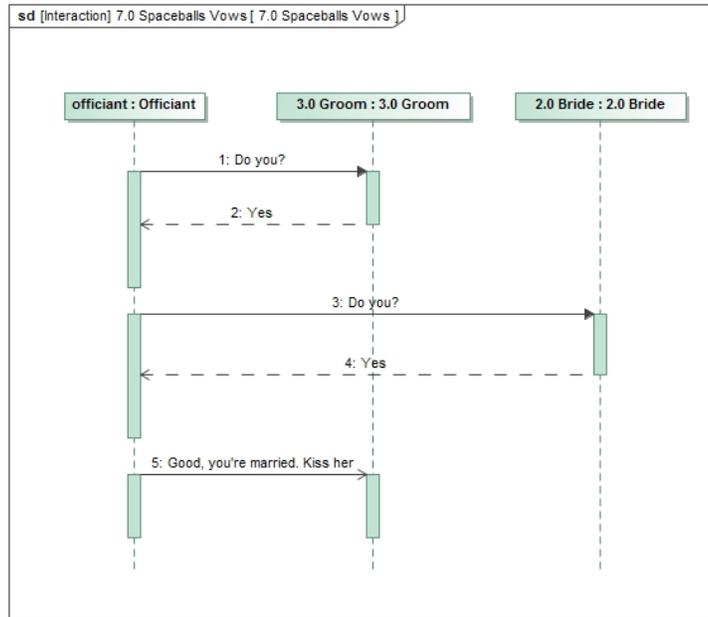


Figure 4: A sequence diagram depicting the wedding vows in the movie, Spaceballs.

## Great Lakes Regional Conference and Energy Tech 2015

Don't forget that our chapter is hosting the Great Lakes Regional Conference next October in conjunction with Energy Tech. Visit the [INCOSE GLRC page](#) for more information.



## IS2015

INCOSE celebrates its 25<sup>th</sup> anniversary this year by holding the International Symposium where it all started, in Seattle, WA. Visit the [INCOSE IS2015 web site](#) for more information.



Seattle, WA  
July 13-16, 2015

## Did you know?

Today in the US, 77 universities offer undergraduate or graduate level degree programs in Systems Engineering.

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### **2015 Chapter Officers:**

**President:**

Carl J. Dister

**Vice-President:**

Marian Cronin

**Secretary:**

Katie Trase

**Treasurer:**

Ernest Ansu-Gyeabour