

Meeting Minutes

Meeting: September 30, 2014, web meeting of Patterns Challenge Team of MBSE Initiative.

Participants:

(**= co-chairs of challenge team)

<u>Name</u>	<u>Affiliation</u>	<u>Email</u>	
Peterson (**)	Troy	Booz Allen Hamilton	peterson_troy@bah.com
Pickard	Andy	Rolls-Royce	Andrew.C.Pickard@rolls-royce.com
Berg	Eric	Procter & Gamble	berg.ec@pg.com
Schindel (**)	Bill	ICTT System Sciences	schindel@icct.com
Thukral	Vijay	Cientive Group	vijay.thukral@cientivegroup.com
Stege	Dan	Deere, Inc.	StegeDanielK@JohnDeere.com
Kittell	Kirk	Esterline Mason	kirk.kittell@gmail.com
Walley	George	Ford	george.walley@gmail.com

Summary:

1. We reviewed a Detailed Interaction Model and Requirements Model portion of an example S*Pattern, in preparation for review of that part of other team S*Patterns in our next call.
2. Andy Pickard discussed work on a Verification Pattern, being expanded from prose form to explicit model form, in connection with an IS2015 paper.
3. Troy Peterson discussed work on a RC and Autonomous Vehicle Pattern.
4. Various questions related to the portions of the patterns reviewed were raised and discussed.
5. Plans for related IS2015, GLRC2014, and IW2015 papers and sessions were discussed.
6. Outreach to other INCOSE working groups were discussed, including plans for an IW2015 MBSE Workshop break-out session on Agile Systems, Patterns, and Composable Systems, with Rick Dove.
7. We agreed to meet again in two weeks, on Tuesday, October 14, at 4:00 PM EST.

Details:

8. Pattern construction in active progress by four sub-teams:
 - Product (Oil Filter) and its Manufacturing System: Bill Schindel, Stephen Lewis (ICTT), David Cook (Moog), Saumya Sanyal (K2 Firm)
 - Verification System: Andy Pickard and Rolls-Royce colleagues
 - RC and Autonomous Car: Troy Peterson and BAH colleagues
 - Aerospace Electronic System: Tamara Valinoto and her NGC colleagues (we are recently out of touch with this team)
9. Andy Pickard walked the group through the current form of the Verification System Pattern, in connection with his IS2015 paper, with some discussion of updates in progress based on the S*Metamodel related feedback provided by Bill Schindel.
10. Andy agreed that the draft in-process Verification System Pattern could be posted on the working group web site with the other in-process patterns.

11. Troy Peterson discussed the RC / Autonomous Vehicle Pattern in progress, including work on a Domain Model, Interactions, and States. He is using Magic Draw for SysML, along with Lattix (for DSMs) and Excel, and has intentions on OpCat for an OPM version of the same pattern.
12. Troy agreed to place the in-process draft of the RC / Autonomous Vehicle Pattern on the working group web site with the other in-process patterns.
13. Troy indicated we have not had contact with NGC's sub-team (Tamara Valinoto) for a while, and that there may be NGC issues with sharing of pattern data to be resolved.
14. Bill discussed interest in demonstrating how upper layers of a pattern framework can be shared in order to coordinate across enterprises, as in technical standards and open architectural frameworks, while the more detailed configuration lower layers of a pattern can be kept proprietary to different enterprises. A demonstration of this within INCOSE would be a helpful thing to stimulate more activity of this type, if we can find enterprises that would like to demonstrate that approach.
15. Submission (by November 9) of related IS2015 papers is encouraged. At least two are in the works, from the teams listed above. A related INCOSE GLRC2014 submission has also been accepted for that conference.
16. Bill discussed the upcoming GLRC2014 conference, and related PBSE sessions in that meeting in Schaumburg, IL, Oct 10-11.
17. Bill Schindel summarized his September 21-22 New Mexico visit with Rick Dove, chair of the Agile Systems Working Group, to plan a joint session at the MBSE Workshop of IW2015.
18. Bill Schindel briefly reviewed the Detailed Interaction Model and Requirements Model content of the example Oil Filter S*Pattern:
 - Illustrating model areas we'd like to review in sub-teams' patterns next meeting.
 - Detailed Interaction Model drills into a physical interaction previously identified in the higher-level Interactions Model and State Model, between the (black box) system of interest and its external environment actors.
 - These interactions are all exchanges of energy, force, mass, or information, impacting state of interacting systems—interactions that would be recognized as such in engineering and science, not some other kind of conceptual interaction.
 - Modeled Requirements Statements then become analogous to “transfer functions”, characterizing the input-output relationships of interacting roles during an interaction.
 - Requirements Statements may be parameterized by Attributes, further characterizing these “transfer functions”.
 - Each Functional Role present in an Interaction should be fully characterized by its Requirements Statements, in that fashion.

Action Items:

19. Catch up with NGC and coordinate team meeting calendars. Identify potential interest in seeing how to structure patterns with shared content and unshared private content. (Troy Peterson, Tamara Valinoto)

20. Collaborate on specific illustrations of S*Pattern form of verification patterns provided by Andy Pickard (Andy, Bill)
21. (Each pattern sub-team) Continue working on individual patterns, to stay ahead of the pattern review schedule:

Sessions	Configurable S*Pattern Construction
Aug	Configurable Features Model; Domain Model
Sep	Domain Model; Interactions; States
Oct	Detail Interactions; Requirements; Attribute Couplings
Nov	Logical Architecture; Detail Interactions; Requirements
Dec	Physical Architecture; Failure Modes
Jan	More about configuration rules

22. Use Global Meet's audio recording feature for next meeting, adding audio record of meeting (Bill S)
23. Generate meeting minutes and distribute to attendees and interested parties. (Troy P, Bill S)
24. Support IS2015 paper(s) from project teams (All interested team members, Bill S, Troy P)
25. Report to MBSE Initiative on Challenge Team plans and status (Bill S)
26. Continue to work with Rick Dove on IW2015 joint session (Bill S)
27. Discuss possible collaboration with Midwest Regional Biomedical / Healthcare Working Group (Ajay T, Vijay T, Bill S)

References:

28. September 30 meeting agenda and meeting slides (including Oil Filter Pattern), at http://www.omgwiki.org/MBSE/doku.php?id=mbse:patterns:patterns_challenge_team_mtg_09.30.14
29. New pages on the Patterns Challenge Team web site, for the individual sub-team patterns, found at: <https://sites.google.com/site/incosepbsewgtempaccess/> (also linked at bottom of the MBSE wiki web page for our Patterns Challenge Team)
30. Draft of Verification System Pattern, by Andy Pickard.
31. Draft of RC Car System Pattern, by Troy Peterson
32. Extracts from Oil Filter Pattern, by Bill Schindel
33. Patterns Challenge Team web site (contains all the following downloadable references): <http://www.omgwiki.org/MBSE/doku.php?id=mbse:patterns:patterns> ; other references on PBSE provided there.
34. Patterns challenge team Charter (see web site)