Meeting Minutes

Meeting: September 15, 2014, web meeting of Patterns Challenge Team of MBSE Initiative, via remote dial-in.

Participants:
(**= co-chairs of challenge team)

Name		Affiliation	Email
Peterson (**)	Troy	Booz Allen Hamilton	peterson_troy@bah.com
Pickard	Andy	Rolls-Royce	Andrew.C.Pickard@rolls-royce.com
Rogers	David	Rolls-Royce	david.rogers2@rolls-royce.com
Schindel (**)	Bill	ICTT System Sciences	schindel@ictt.com
Thukral	Ajay	Cientive Group	ajay.thukral@cientivegroup.com
Wasson	Charles	Wasson Consulting	wslse@cpws.net

Summary:

1. We reviewed a State Model and Interaction 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 and Troy Peterson discussed work on a RC and Autonomous Vehicle Pattern.

3. Various questions related to the portions of the patterns reviewed were raised and discussed.

4. The project schedule, rate of progress, and rate of team web meetings for the rest of 2014 were 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 Monday, September 30, 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 expressed interest in updating the Verification System Pattern, in connection with S*Metamodel related feedback provided by Bill Schindel.

10. Ajay Thukral summarized the Midwest Regional Biomedical / Healthcare Working Group's initial work on reference models, starting with a pump, and potential interest in collaborating with the Patterns Challenge Team.

11. Troy Peterson is using a combination of MagicDraw, Lattix, and Excel as media for the RC and Autonomous Car Pattern.

12. Charles Wasson referred Troy Peterson to past work by U of Michigan on autonomous vehicles.

13. Submission (by November) 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 (October) conference.

14. Bill Schindel summarized plans on working with Rick Dove of the Agile Systems Working Group on a joint session at the MBSE Workshop of IW2015, and is going to visit Rick on this next week.

15. Bill Schindel briefly reviewed the Interaction Model and State Model content of the example Oil Filter S*Pattern:

    - Illustrating model areas we'd like to review in sub-teams' patterns next meeting.

    - Interaction Model identifies all physical interactions 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.

    - Each interaction is a named object in the Interactions Model portion of the pattern.

    - Every external Actor and external Interface of the Domain Model must be associated with at least one Interaction, and every Interaction must be associated with at least one external Actor and Interface.

    - These are the very same Interactions that are also associated with the Stakeholder Features discussed in the previous session, where they were required to "cover" the Features Model.

    - State Model identifies all the states, modes, situations, or phases of the system of interest; each such state has duration in time, beginning upon "entry into the state" and ending upon "exit from the state". The State Model creates a temporal framework.

    - During each such state, the behavior of the system of interest (its interactions with external actors) is characterized by the subset of Interactions that are shown as associated with the state.

    - Every Interaction should be associated with at least one State. Every State should be associated with at least one Interaction. The Interactions associated with a State should appear on inspection to cover all behavior during that state.

    - Charles Wasson discussed historical differentiation of states and modes in models, and offered to send a related paper.

Action Items:

16. Catch up with NGC and coordinate team meeting calendars (Troy Peterson, Tamara Valinoto)

17. Collaborate on specific illustrations of S*Pattern form of verification patterns provided by Andy Pickard (Andy, Bill)

18. (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

19. Use Global Meet's audio recording feature for next meeting, adding audio record of meeting (Bill S)

20. Generate meeting minutes and distribute to attendees and interested parties. (Troy P, Bill S)

21. Support IS2015 paper(s) from project teams (All interested team members, Bill S, Troy P)

22. Report to MBSE Initiative on Challenge Team plans and status (Bill S)

23. Meet with Rick Dove on IW2015 joint session (Bill S)

24. Discuss possible collaboration with Midwest Regional Biomedical / Healthcare Working Group (Ajay T, Bill S)

References:

25. September 15 meeting agenda and meeting slides (including Oil Filter Pattern), at http://www.omgwiki.org/MBSE/doku.php?id=mbse:patterns:patterns_challenge_team_mtg_09.15.14

26. Draft of Verification System Pattern, by Andy Pickard.

27. Draft of RC Car System Pattern, by Troy Peterson

28. 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.

29. Patterns challenge team Charter (see web site)