INCOSE MBSE Patterns Working Group

Interface Patterns Project
<u>Meeting Minutes</u>

<u>Date/Time</u>: Friday, June 16, 9:00 – 11:45 AM EST

Attendees:

X	Bill Schindel	ICTT System Sciences	schindel@ictt.com	812.232.2062
	Frank Salvatore	Engility Corp.	frank.salvatore@engilitycorp.com	973.607.2068
X	Jon Torok	NSWC Crane	torokrj@gmail.com	812.854.5247
X	Jason Sherey	ICTT System Sciences	sherey@ictt.com	812.232.5968
X	Stephen Lewis	ICTT System Sciences	lewis@ictt.com	812.231.7930

<u>Summary of This Meeting:</u>

*<u>Work Stream 1 (Interface aspects of S*Metamodel):</u>*

1. We discussed the relationship between (named) Architectural Relationships and (named) Interactions from which they could be said to arise (not 1:1), why they have different names, and potential related naming conventions.

2. Jason provided a mapping from S*Interface model elements to SysML elements.

3. Jason identified remaining mapping issues, most importantly interface grouping of interface contexts and linking the system of access to an interface context.

<u>Work Stream 2 (Library of Interface Patterns):</u>

4. We discussed the (previously distributed) "skeletons" of the proposed list of initial priority Interface Patterns (e.g., mechanical mounting, electrical power, etc.), and agreed that their individual scopes should be reduced from that draft, to purify them to be multiply inherited into specialized real world interface models, which mix mechanical, electrical, or other interface characteristics from each of them.

5. Jason provided an interface model example

<u>Work Stream 3 (Interface-Oriented Queries and Views):</u>

6. Jason provided a query-generated table produced from a SysML modeled database, illustrating documentation of the mapping from S*Metamodel Interface elements into SysML elements.

<u>Work Stream 4 (Identify interface-oriented tasks in system life cycle processes):</u>

7. Contractor coordination mentioned but not discussed yet.

8. General notion that interface details may come later in development cycle mentioned but not discussed yet.

9. ICD template example provided by Frank not discussed yet in group meeting.

<u>Work Stream 5 (Pattern Governance):</u>

10. (Future subject)

<u>Work Stream 6 (Tool specific items not specific to interfaces):</u>

11. Jon provided a slide presentation populated from a SysML model database.

Next meeting will be on Friday, June 30, 9:00 AM EST.

Details:

Action Items:

Work Stream 1 (Interface aspects of S*Metamodel):

12. Provide an S*Metamodel level explanation of the "edge of SOA" questions, independent of SysML, as a future input to its re-expression in SysML. (Bill)

Work Stream 2 (Library of Interface Patterns):

13. Narrow the scope of, and fill in more details for, the earlier "skeleton" draft of each of the targeted Interface Patterns (Bill)

Work Stream 3 (Interface-Oriented Queries and Views):

14. Review the example ICD document template provided by Frank. (All)

15. Identify list of views, queries, reports, or displays (e.g., ICD, levels/scope of Interfaces, etc.) that we should pursue as interface-related, against related ISO 15288/15289 or other frameworks. (Frank, Jason, Jon)

16. Discuss Frank's (emailed) question about engagement of others available to his INCOSE Chapter in future tasks.

Work Stream 4 (Identify interface-oriented tasks in system life cycle processes):

17. Discuss Frank's (emailed) question about engagement of others available to his INCOSE Chapter in future tasks.

Work Stream 5 (Pattern Governance):

Work Stream 6 (Tool specific items not specific to interfaces):

18. Verify access to Team Work Cloud (All).

Reference Materials: (These may be down loaded from the following project web site)

1. Project web site: http://www.omgwiki.org/MBSE/doku.php?id=mbse:patterns:interface_patterns_team Pages easily added under that location. Files can be inserted there when appropriate (see same)

2. Interface Patterns Project Charter, INCOSE Patterns Working Group, V1.3.2

3. Abbreviated S*Metamodel Glossary, V4.3.1, ICTT System Sciences, 2017.

4. Extract from S*Metamodel: Interface Related Elements, 03.07.2017, V1.2.6, ICTT

5. Shames, Sarrel, Friedenthal, "A Representative Application of a Layered Interface Modeling Pattern", Proc. of INCOSE International Symposium 2016, Edinburgh, UK; paper + slides:
   http://www.omgsysml.org/A_modeling_pattern_for_layered_system_interfaces-INCOSE%20IS15_paper-sarrel-shames.pdf
   http://www.omgwiki.org/OMGSysML/lib/exe/fetch.php?media=sysml-roadmap:a_representative_application_of_a_layered_interface_modeling_2016-07-11.pptx

6. Shames, Sarrel, Friedenthal, "Modeling Systems of Systems Interfaces with SysML", AIAA 2016 Conference, SpaceOps Conference, (AIAA 2016-2500) http://dx.doi.org/10.2514/6.2016-2500

7. OMG SysML 2.0 Interface Concepts Team web site:
http://www.omgwiki.org/OMGSysML/doku.php?id=sysml-roadmap:interface_concepts_modeling_core_team

8. JPL MBEE Project wiki: https://github.com/Open-MBEE/ProjectWiki